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# INTERNATIONAL ABSTRACT OF SURGERY

MAY, 1913


# ABSTRACTS OF CURRENT LITERATURE

## GENERAL SURGERY

## SURGICAL TECHNIQUE

### ANÆSTHETICS

**Grunert: The Present Status of General Narcosis** (Der gegenwärtige Stand der Allgemeinnarkose). *Ergebn d. Chir. u. Orthop.*, 1913, v. 1.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author has gathered together the principal advances made in the field of general narcosis. Klapp has tried, by reducing the area of circulation, to reduce the quantity of narcotic necessary, and thereby decrease its toxicity to as small a point as possible. Meltzer and Auer have introduced a method of insufflation. The method of direct massage of the heart in chloroform narcosis, especially the subdiaphragmatic, has given good results. Chloroform has been used less because of late fatal complications. In ether narcosis the ether "rausch" has been more widely used, and the method of administration has been improved by the so-called gas-ether method. The "rausch" with ethyl chloride is more often employed. Lotheissen has experimented with the oxide of ethyl chloride. Many attempts have been made to combine narcotics, such as scopolamin and pantopon in place of scopolamin and morphin for hypodermic injections, especially as an aid to inhalation narcosis. Its combination with nitrous oxide is gaining adherents in Germany (Neu, Gottlieb, and Madelung). Intravenous narcosis is still in the experimental stage. Besides the intravenous ether narcosis, the intravenous hedonal narcosis must be mentioned, and especially the isopral-ether mixture recommended by Burkhardt. Dumont opposes rectal narcosis.

The greatest precaution must be exercised in administering the ether vapors, but they can be administered with less danger by using a solution of ether according to a method advised by Arnd.

BRUNN.

**Grayson: Eight Years of Chloroform Anæsthesia in Nose and Throat Surgery.** *Laryngoscope*, 1913, xxiii, 61.
By Surg., Gynec. & Obst

The author gives his experience with chloroform as an anæsthetic in more than 3800 operations at the Hospital of the University of Pennsylvania. His defiance of the deep and almost universal prejudice against chloroform in the Middle and New England States was occasioned by the many objectionable features of ether in the surgery of the nose and throat. The operations in which he has employed chloroform include tonsillectomy, adenectomy, the correction of septal deformities, certain of the sinus operations and several tracheotomies.

He employs the "open method" of administration with the Esmarch mask, covering this, not with a single thick sheet of flannel or other comparatively impervious-to-air material, but instead with from four to six layers of ordinary surgical gauze, the number depending on the age and general condition of the patient. The precautions taken to combat the supposed dangers of this anæsthetic have consisted in a careful preliminary investigation of the vitality of each patient, the invariable use of a freshly opened bottle of chloroform, close and constant observation of the patient during the induction of anæsthesia, and the most scrupulous care regarding every detail of the administration of the anæsthetic. Although his cases have included many instances of cardiac valvular insufficiency, he has yet to meet with his first accident, and he concludes that it is much more prudent and easy to prevent accidents than to cope with them successfully should they be permitted to occur. He does not believe that the cardiac failure and other mishaps of chloroform anæsthesia, however sudden and unprovoked they may seem, ever occur without both warning and provocation. He cannot agree with those who think this anæsthetic treacherous,

and he is convinced that many of the fatalities that have occurred under chloroform anæsthesia have been attributable not so much to the chloroform itself as to carelessness in its use.

**Keppler and Breslauer: Intravenous Narcosis** (Zur Frage der intravenosen Narkose). *Deutsche Ztsch. f. Chir.*, 1913, cxx, 265.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s d. Grenzgeb.

The authors report a series of investigations pertaining to the application of various narcotics in securing general anæsthesia through intravenous injections. The shortcomings of the various methods now in use to produce general anæsthesia are reviewed. There are two avenues along which improvement in narcosis is traveling; first, by combining narcotics, and second, other places of application in order to get rapid absorption. The dangers and difficulties of rectal and subcutaneous anæsthesia are gone into. Intravenous anæsthesia was used as early as 1872, and to-day there are three groups of reagents used for the purpose: first, total anæsthesia acquired through the injection of cocain and its substitutes into the blood (this has been tried by Ritter on animals only); second, narcosis produced by a solution of chloroform and ether; third, the injection of a solution of the urea derivatives, urethan, hedonal, etc.

The authors object to the first method because it is not a total anæsthesia, a true narcosis, but only an elimination of the nerve tracts and end apparatus which is entirely different from narcosis of the ganglion cells. The latter are only affected by the severe toxicity of the alkaloid, not narcotized. Ritter discovered that through the general action of cocain by way of the blood stream, the sensory fibers are made non-sensitive before the general nervous system is poisoned. The other two methods of intravenous narcosis aim at producing the ordinary cerebral anæsthesia, a true narcosis or hypnosis, using a portal of entry other than the lung. In these two methods of producing general anæsthesia two principles are involved — a volatile or a non-volatile reagent is used. A volatile solution, in passing the lesser circulation on its way to the brain, loses some of its strength by exhalation from the lung. Its concentration is therefore affected. The amount given off varies, but is considerable. The advantage of this is the rapid elimination of the reagent. The disadvantages are that the respiratory organs are affected, although to a less degree than in the inhalation method; that large amounts of the reagent are needed, although the blood pressure is not affected; the low boiling point; thrombosis, which can be avoided by using Hagemann's solution; and the continuous administration without causing stagnation at any point.

The non-volatile reagents are not affected by their course through the lungs, but they have their disadvantages. Among these may be mentioned their insolubility; the length of time they remain in the body, so that the patient sleeps hours after the operation, predisposing to pneumonia, asphyxia from dropping backward of the tongue, etc. Attacks of vomiting, excitement and paralysis of the respiratory center occurred in 8 out of 530 cases. Urethan is more soluble than hedonal, but it forms a solution too concentrated and non-isotonic.

All venous narcosis is still hampered with large apparatus, continuous infusion, and difficulty in shifting the patient. The ideal intravenous injection for narcosis should consist of a single injection of a few cubic centimeters of a chemically inert narcotic that acts specifically on the cerebral cortex and has no effect on any other organ. Its toxic range should be broad enough to eliminate any danger, and the narcotic action should pass off rapidly after the operation. With this ideal in mind the authors tried the more important reagents on animals.

The true narcotics, ethyl bromide, nitrous oxide, and ethyl chloride, are of no use since they cause cyanosis, dyspnœa and cessation of respiration; also their boiling points are too low. The hypnotics and sedatives of the alcohol group also fail to fill the requirements. Chloral hydrate, like isopral, causes a lowering of the blood pressure (down to 80 mm.) and often a cessation of the heart beat, as in chloroform death. The derivatives all have the same effect, and in addition the patient sleeps for hours after the operation. After the use of trional or paraldehyde, the patient sleeps for two days or more. Amyl hydrate caused nervousness and clonic cramps. Chloral, formamid, sulfonal and veronal dissolve with great difficulty. The sodium salt of veronal is too dangerous because of the paralytic effect on the medulla. Urethan and hedonal had to be given in doses entirely too large to be of benefit; urethan caused infarcts in the kidney in one instance. The bromides are too weak.

The narcotic alkaloids on the other hand work very well, especially the opium group. Morphin and opium given intravenously caused a number of secondary symptoms, vomiting, haziness, etc.; but working with dogs it was possible to get sufficient narcosis without causing these secondary symptoms. Intravenous injections of pantopon came nearer the ideal than anything else which was tried. The authors used it in 50 cases (¾ to 1 cg. per K. body weight) and in all narcosis was sufficient for the operation, no death resulting. Only 10 cc. of the solvent was necessary. Vomiting, albuminuria, damage to the heart or lungs did not occur, and the patient was awake in 15 minutes after the narcosis was stopped. These fine results are due to the fact that complete narcosis of the cerebrum can be obtained without abolishing the reflexes. The muscle tone is partially retained, but it was not so prominent as to interfere with the operator. When applied to the human being pantopon failed, as no analgesic action occurred; and when larger doses were given a long post-operative sleep resulted. The possibility of success, therefore, lies in discovering a preparation which acts on man as pantopon acts on dogs. PEITZSCH.

**Noel and Souttar: Anæsthetic Effects of the Intravenous Injection of Paraldehyde.** *Ann. Surg.*, Phila., 1913, lvii, 64.

By Surg., Gynec. & Obst.

Paraldehyde has long been recognized as in many ways the most perfect hypnotic. To avoid unpleasant taste and preliminary excitement, intravenous administration is resorted to. Its very rapid action is delayed by dilution.

The authors mix 5 to 15 cc. of paraldehyde with an equal amount of ether and dissolve this in 150 cc. cold 1 per cent sodium chloride in sterile distilled water, or when necessary, ordinary boiled tap water. The solution should be perfectly clear after shaking. The Fildes and Macintosh apparatus for salvarsan is used, and the solution is injected at a temperature not exceeding 25° C., at the rate of 5 to 10 cc. per minute.

The most striking results were seen in the case of alcoholics, both acute and chronic.

At each instant the patient exhibits the maximum effect of the dose given, so its administration is under absolute control.

No after effects of any kind occurred, though the method was used in cases of grave cardiac and pulmonary diseases.

It is not suggested as a substitute for the slower but more lasting hypnotics; but the authors never failed, even under the most trying circumstances, to induce a condition resembling normal sleep in 60 seconds. No record could be found in the literature of the previous intravenous use of paraldehyde. H. W. KOSTMAYER.

**Seidel: Mandibular Anæsthesia; Anatomical and Clinical Experiments to Avoid After Effects** (Die Mandibularanästhesie; Anatomische und klinische Untersuchungen zur Vermeidung ihrer üblen Folgeerscheinungen). *Deutsche Zahnheilk. in Vortr.*, 1913, xxviii, 31.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The after effects of mandibular anæsthesia are often difficulty in swallowing and trismus. According to Seidel, these are to be attributed to the effects of infiltration of the internal pterygoid and the superior pharyngeal constrictor muscles by the novocain-supravein solution. He rejects the customary technique of mandibular anæsthesia in which one proceeds from the premolar or first molar of the sound side directly to the mandibular foramen. He considers the method given by Braun, of beginning at the retromolar trigonum and passing along the bony wall of the ascending ramus to the mandibular foramen, to be better. He has demonstrated by anatomical investigations that the position of the foramen mandibulare varies and is therefore difficult to find. The upper half of the mandibular sulcus, where the nerve lies in loose connective tissue between the bone and the musculature, is sufficient for the deposition of the liquid. The needle of the syringe is 0.5 to 0.7 mm. thick and 4.5 cm. long, and is made of platiniridium so that it may not break within the tissue. HERDA.

**Braun: The Advantage of Local Anæsthesia for the Reduction of Fractures and Dislocations** (Die Anwendung der Lokalanästhesie zur Reposition subcutaner Frakturen und Luxationen). *Deutsche med. Wchnschr.*, 1913, xxxix, 17.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Fractures were reduced under local anæsthesia as early as 1885. In that year Conway, an American surgeon, and a little later Von Reclus reduced fractures under local anæsthesia without pain. In 1907 and 1908 Lerda and Quénu reported a large number of cases of fractures in various positions of the body, where reduction was done successfully and painlessly by the local injection of cocain solution. Later Braun reduced fractures under local anæsthesia using a 1 per cent solution of novocain-adrenalin instead of cocain. In joint fractures the solution is injected directly into the joint. Braun further recommends the use of this solution in cases of aseptic arthrotomy, especially in the knee joint, for the removal of loose bodies in a joint, meniscus operations, suturing of the patella in cases of fractures, etc. It is also used in the reduction of dislocation of the shoulder, elbow, and femur. Conway reports that he had used local injection in a case of dislocation of the elbow joint. The solution is injected both on the central and peripheral side of the dislocated joint.

Braun reports that he has used such injection in over 50 cases of fractures and dislocations during the last year. In 2 cases of dislocations of the hip (ischial and obturator) he was able to procure complete anæsthesia and relaxation when the anæsthetic was injected. The position of the head of the femur was first palpated and then 25 cc. of a 1 per cent solution of novocain-adrenalin was injected into the palpated area. This was followed by the injection of 20 cc. of the same solution into the acetabulum. In doing this Braun mentions the following procedure: the puncture is made with a needle 10 cm. long, just back of the anterior superior spine, following the bone until it reaches the acetabulum, after which 20 cc. of the solution is injected. According to Braun the reduction of dislocations was easier under local than under general anæsthesia. HIRSCHEL.

**Läwen: Extradural Anæsthesia** (Die Extraduralanästhesie). *Ergebn. d. Chir. u. Orth.*, 1913, v. 39.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Läwen gives a compilation of the literature and reports his own experience with extradural anæsthesia. In the different chapters are treated: the development of epidural injections for sacral anæsthesia; the anatomy of the epidural space, which is illustrated by photographs of pelvic preparations; examination of the different material in the cavum epidural and the technique of extradural anæsthesia, with the author's own method and the results hitherto obtained. In the last chapter, the author opposes high extradural anæsthesia as advocated by Schlimpert, which he considers rather a combination of local anæsthesia with the general

effect from the resorbed novocain. He puts his faith in his own technique and advises against undertaking those major operations which cannot be performed under this form of extradural anæsthesia. Since his last publication, extradural anæsthesia has been employed by his method in 65 cases, 41 Whitehead operations or cauterizations of hæmorrhoids, 1 extirpation of a melosarcoma of the anus, 8 operations for tuberculous and other anal fistulæ, 2 for anal fissure, 1 extirpation of a rectal polypus, 11 operations on the urethra, and 1 secondary perineorrhaphy. In three cases anæsthesia failed; four times during operation narcosis had to be added after extradural anæsthesia had been attempted. Extradural anæsthesia should be used in women only for vaginal operations, following the author's directions strictly. Fat patients should be excluded, as should the senile, the arteriosclerotic, and those suffering from heart disease, nephritis, anæmia, or functional or organic disorders of the nerves. SCHLIMPERT.

**Bleek: Extradural Anæsthesia for Surgical and Gynecological Operations** (Ueber Extraduralanästhesie für chirurgische und gynäkologische Operationen). *Monatschr. f. Geburtsh. u. Gynäk.*, 1913, xxxvii, 122.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Bleek gives a report of 48 operations performed with extradural anæsthesia. The operations were for hæmorrhoids, rectal fistulæ, perineal laceration, uterine displacement or extirpation by the vaginal route, round ligament shortening by the Alexander-Adams method, besides a Bassini herniotomy. A 2 per cent novocain solution was injected with four or five drops of adrenalin and sodium bicarbonate. The usual injection is 20 cc., equal to 0.4 novocain, but Bleek has employed a maximum dose of 28 cc. "Dämmerschlaf" was avoided as a rule, and occasionally 0.03 pantopon plus 0.003 scopolamin was first injected. The results were satisfactory in 29 cases, but in 19 an additional anæsthesia was necessary. Among the latter cases appear most of the vaginal hysterectomies and uterine interposition operations, the Bassini operation, and the sectio alta. One severe complication in a vaginal total extirpation, came on as a paralysis of both legs and disturbance of hearing, but both were finally cured. The author believes that this accident was due to a technical error, an intradural injection. He therefore warns against such an error, and advises against the use of a larger quantity than 20 cc. of a 2 per cent solution. The so-called "high sacral anæsthesia" is condemned as being the cause of prolonged "Dämmerschlaf." FREUND.

## SURGICAL INSTRUMENTS AND APPARATUS

**Lusk: An Instrument for Establishing Fæcal Drainage; Its Use on a Case, and Consideration of Site for Making a Fæcal Fistula in Low-seated Intestinal Obstruction.** *Ann. Surg.*, Phila., 1913, lvii, 106. By Surg., Gynec. & Obst.

The instrument compresses the bowel in a circle around a perforation, between a ring introduced within the bowel and a cap outside. Connecting with the latter is a tube for drainage, which mechanism maintains a water-tight joint around the perforation long enough for adhesions to form between the bowel and the abdominal wound. No sutures are used, the instrument being tied to the abdominal wall.

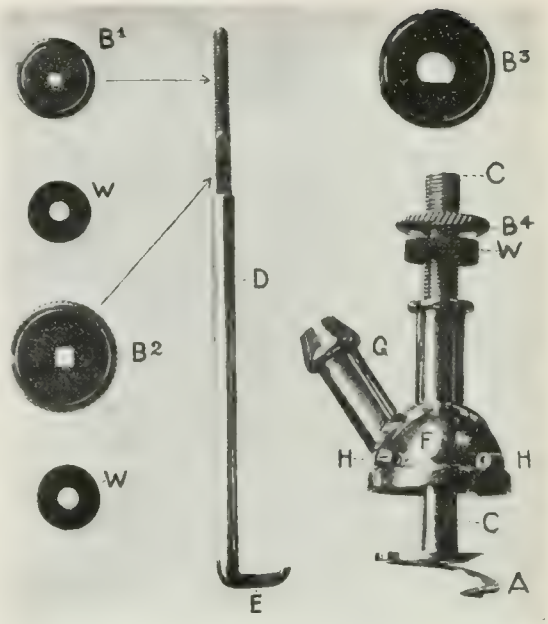


Fig. 1. (Lusk.)

The instrument was used in five dogs and one man, each time without peritoneal infection. In the first dog no drainage was used, and a phlegmon of the abdominal wall caused his death. In the other cases a strip of gauze along the juncture of the instrument with the bowel obviated this sequel. In the patient the fistula, established through a right transrectus incision just below the level of umbilicus, was 12 feet from the cæcum, and after primary relief distention recurred. Patient lived 22 hours. The lower ileum lay in front of the ascending colon.

*Technique.* The technique of using the fistula instrument was worked out on cadavers with distended intestines, so that it must yet receive the test of experience before it can be thoroughly approved. A holding thread catches deeply the presenting bowel at a site which, on relief of the distention, will permit slack to be drawn into the wound. An opening about ¼ inch in diameter is made near the thread, allowing the escape of gas with retraction of the abdominal wall, so that the bowel can be drawn by the thread into the wound in a tent-like fold. Through the opening the corkscrew spiral A (Fig. 1) is introduced. Just before the opening comes to the corner where the binding post attaches the spiral A to the central shaft C,

the point of the spiral will catch on the mucosa, which obstruction must be freed by pulling on the intestine in advance of the opening before the latter can be made to round the corner. The opening is then brought into position around the central shaft. The spiral, now within the bowel, is converted into a complete ring by means of a manipulating apparatus (D, E, B1, B2), and against this ring the cap F outside is then made to evenly compress the intervening tissues.

When a transverse wound opposite the iliac spine is used, it is recommended that the instrument be attached by its four loopholes (H) to the aponeurosis of the external oblique about 1 cm. from its cut edges, and at the inner angle of the wound to draw together the internal oblique and transversalis muscle fibres and peritoneum around the extruded bowel. A narrow gauze drain is laid around the base of the instrument beneath the fixation sutures before the latter are tied. The ends of the fixation stitches should be left long to facilitate subsequent removal.

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# SURGERY OF THE HEAD AND NECK

## HEAD

**Hall: Two Cases of Colloid Tumor of the Third Ventricle Causing Death.** *Lancet*, Lond., 1913, clxxxiv, 80. By Surg., Gynec. & Obst.

The author reports two cases of colloid tumor, each about the size of a marble, occupying the anterior part of the third ventricle. The first patient died a few hours after being first seen in a semi-comatose condition. The second died suddenly with little previous history except headache. The author describes the pathology of the tumor, which consisted of structureless hyaline matrix containing, at wide intervals, epithelial cells in various stages of degeneration. He was able to collect in all 9 cases of such tumors, and limits himself to the pathology of the condition. DONALD C. BALFOUR.

**Oppenheim: Clinical Peculiarities of Brain Tumors** (Ueber klinische Eigentümlichkeiten kongenitaler Hirngeschwülste). *Neurol. Zentralbl.*, 1913, xxxii, 3.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Four cases are reported in which Oppenheim made a diagnosis of angioma of the brain. The condition is recognized by the presence of angioma elsewhere in the body, angiopathic or congested conditions, or only congenital malformations, besides the symptoms of brain involvement. Epileptiform attacks are prominent, and are of the cortical type rather than idiopathic. In addition there are attacks or symptoms of paralysis of one half of the body, epileptiform in nature, which point to a lesion in the cortex or central ganglia. Pressure symptoms are absent or only accompany the attacks of paralysis. Of importance is the protracted course with intervals without symptoms, and the fact it manifests itself after trauma or psychical excitement. WERDE.

**Archambault: A Contribution to the Symptomatology of Cerebral Abscess, with Especial Reference to Diagnosis and to Indications for Surgical Intervention.** *Albany M. Ann.*, 1913, xxxiv, 6. By Surg., Gynec. & Obst.

Despite the fact that the last decade has furnished an exceptional number of valuable publications on the diagnosis and treatment of cerebral abscess, we will stand sadly in need of additional diagnostic data before we can hope to fully materialize the unquestioned efficiency of surgical intervention in this particularly fatal affection.

The symptoms upon which greatest reliance can be placed in reaching an early diagnosis of cerebral abscess, and the clinical developments which furnish the strongest indications for operative intervention, may be jointly summarized in the following considerations:

1. Of general symptoms, the febrile reaction when present, the early appearance of psychic manifestations such as have been previously described, persistent headache, frequently of a dull and constricting character, changes in the blood picture, and the slowing of the pulse rate, are by far the most important. Insufficient in themselves to warrant surgical interference, they acquire considerable value in the presence of a previous history of traumatism or of otitis media; when associated with local symptoms, they complete the indications for operation.

2. The appearance of symptoms of focal cerebral disorder are of the very greatest importance, both for topical diagnosis and for well-directed and intelligent operative procedure. It is only when taken in conjunction with the general symptoms mentioned above, however, that they clearly point to cerebral abscess. Here, as elsewhere, the well-known rule formulated by competent and experienced clinicians is to be applied. A diagnosis should never be made from one symptom alone, but from a careful survey of all the symptoms present, and particularly from the predominance of certain of them, as well as from the mode and rapidity of their development. It is in this respect that the hemiplegia which has furnished the essential motive of this communication assumes such great significance. This hemiplegia represents more than a symptom, it almost constitutes a syndrome. It may appear either early or very late in the course of the disease. When it occurs in the early stages, it indicates that the Rolandic area has probably been primarily involved, and it is here that the symptom attains its maximum diagnostic value. It enables the surgeon to intervene during the stage of initial en-

cephalitis, before the actual formation of an abscess-cavity, and consequently before any very material damage has been done to the brain centers. Under such circumstances, the chances of obtaining remarkable restoration of function are appreciably increased. When the progressive hemiplegia is a late manifestation of cerebral abscess, it is due, evidently, to the secondary extension into the subcortex of the Rolandic area of an already matured abscess originating from some adjacent region of the brain, as, for instance, from the frontal lobe or the temporal lobe. The hemiplegia still retains its full significance, it still remains an imperative indication for intervention, but, of course, as considerable destruction has already occurred, complete retrocession of the paralytic disorders can hardly be expected.

3. The occurrence, at any time in life, of a hemiplegia which starts as a monoplegia and requires several days for its full development, especially if it be associated with either fever, persistent headache, hebetude, or distinct blood changes, with any or all of them, supplies all the indications necessary for immediate surgical intervention.

4. The apoplectiform onset, in a young adult who is neither syphilitic nor tuberculous nor alcoholic, of a localized paralysis associated with convulsive manifestations and accompanied by fever, strongly indicates cerebral abscess and justifies, in the great majority of instances, speedy operative measures.

5. The more or less sudden appearance of aphasic disorders or of a monoplegia in a subject previously suffering from otitis media implies almost necessarily the existence of cerebral abscess and practically suffices to warrant surgical treatment.

**Mees: Extirpation of the Cerebellum in a Case of Congenital Occipital Hydrencephalocele** (Kleinhirnexstirpation bei einem Fall von angeborener Hydrencephalocele occipitalis). *Beitr. z. Geburtsh. u. Gynäk.*, 1913, xviii, 1.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In an infant 2 days old an occipital hydrencephalocele the size of the head of the child was operated upon. The operation seemed necessary because of the size of the tumor and because of the danger of infection by an existing decubital ulcer. After opening the meningeal sac a portion of the brain was found which was diagnosed as cerebellum. It was the size of a hen's egg and contained a hæmorrhagic infarct. A later histological examination confirmed this diagnosis. Since the reposition through the narrow bony opening was impossible, and since the great intracranial pressure could not be reduced even after puncture of the lateral ventricle, ablation of the cerebellum was undertaken. This was a year and a half ago; since then the child has developed slowly but relatively well. The clinical indications of the absence of the cerebellum are nystagmus, absence of the corneal reflex, difference of the muscular tone of the upper and lower extremities, and vomiting. Among the 75 cases in the literature 4 cases of occipital encephalocele with a cerebellum as the hernial content are mentioned which were successfully operated. A fifth case died soon after the operation. RANZI.

**Marburg: Symptoms Due to Lesions of the Hypophysis** (Die Klinik der Zirbeldrusenerkrankunger). *Ergebn. d. inn. Med. u. Kinderh.*, 1913, x, 146.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The symptoms caused by lesions of the hypophysis may be divided thus: general pressure symptoms on the brain, local pressure symptoms on neighboring structures, and symptoms which are related to a lesion of the gland itself. The most constant symptom is headache. This headache is not uncommonly confined to the occipital region and is commonly associated with a stiff neck, opisthotonus, and changes in intensity when stooping. Vomiting occurs somewhat oftener than dizziness. The choked disk resulting from the increased intracranial pressure often occurs earlier on the right side than on the left. Other symptoms are loss of memory and intellect, somnolence, and tonic spasms. Locally the symptoms that are most characteristic are sluggishness or immobility of the pupils and weakness of vision in the upper and lower parts of the visual field. Later it may affect branches of the oculomotor or the trochlear nerve. There may also be a disturbance of hearing, which is usually bilateral, and eventually monoplegia of the extremities may occur due to lesions of the midbrain. An active degenerative process takes place in the cerebellum, which is accompanied by hydrocephalus and lesions of the corpus callosum. The real symptoms due to a lesion of the hypophysis itself are premature hypertrophy of the genitalia and general adiposity.

Tumors of the cerebellum and pons have to be considered when making a differential diagnosis. A diagnosis is often impossible when early genital development and adiposity are not found.

BIERNATH.

**Weber: Commotio Cerebri and Anatomical Findings** (Commotio cerebri mit anatomischen Befunden). *Aerztl. Sachverst. Zeitg.*, 1913, xix, 56.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The patient was thrown from a motorcycle and fell upon his head. At first there were only symptoms of a slight concussion of the brain, but soon signs of serious affection of the brain appeared, death ensuing after 14 days. The autopsy revealed a fissured fracture at the base of the skull and injury of the dura mater. Macroscopically the brain seemed intact, but microscopically acute changes and chronic degenerative processses were discovered in the minute vessels. The author therefore concludes that many cases of commotio cerebri or affection of the brain end fatally, even though the traumatism has been of only medium severity, because a degenerative process, which previous to the accident had not become clinically evident, had already been present in the vessels. RIEDL.

## NECK

**Bauer: Wry Neck** (Der Schiefhals). *Ergebn. d. Chir. u. Orthop.*, 1913, v, 191.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The large bibliography which appears at the beginning of the article is proof of the interest which surgeons and orthopedists have in this disease. There is, however, no complete unanimity of opinion as to the etiology or the therapy; this article is a compilation and critical review of the views on this subject. The greater part of the article treats of muscular wry neck; the forms of the disease which are due to such cases as affections of the eyes and the ears, adenotomy, goiter, and tumors. The osseous, dermatogenous, desmogenous, and rheumatic forms are briefly discussed. The discussion of neurogenous wry neck is reserved for a special article.

On the question of etiology there are two views, which are based on clinical observations, pathologico-anatomical investigations, and experiments. One of these assumes a traumatic origin for the disease of wry neck, the other explains it as an intrauterine stigma. When the points for and against each of these views are weighed, it seems that the assumption of an intrauterine deformity in the great majority of cases will explain all the phenomena in a perfectly satisfactory manner, and is the more probable explanation. On account of the occasional occurrence of hæmatoma in the sterno-cleido-mastoid muscle, a traumatic origin cannot, however, be denied with respect to a limited number of cases; in a few cases an inflammatory origin would also come into question.

Since the purely orthopedic treatment will not suffice, the open operative method alone enters into question. Only a small number of authors advise cutting subcutaneously through the sterno-cleido-mastoid muscle. While the majority of surgeons carry out the bisection of the muscle at its sterno-clavicular origin, Lange recommends cutting through at the superior end. Mikulicz introduced extirpation of this muscle into therapeutic practice; since then various other methods of plastic operation on the origin of the sterno-cleido-mastoid muscle have been proposed. In the author's opinion, Mikulicz's method deserves to rank first, as it does not require prolonged after treatment and frequently produces permanent results. BAISCH.

**White: A Clinical Lecture on Myxœdema.** *Lancet*, Lond., 1913, clxxxiv, 154. By Surg., Gynec. & Obst.

The author reports three typical cases from the wards of Guy's Hospital. About half the cases of myxœdema occur between the ages of 30 and 50; over one third occur between 35 and 45. The normal weight of the thyroid gland is 30 gr.; it may in myœdema sink down to 3 or 4 gr. He gives a very interesting account of the history of our knowledge of the disease. The most remarkable contribution to our knowledge of the subject was made by Sir William Gull, in 1873. There is no evidence that parathyroids have anything to do with myxœdema. He discusses the pituitary gland in relation to myxœdema. Acromegaly is due to disease of the pituitary body. Out of 24 cases in which the thyroid gland was examined in persons who died from acromegaly, in only 5 was the thyroid gland normal. In 15 cases of disease of the pituitary, in which the thyroid was examined, there was some alteration in the gland. The anterior lobe of the pituitary body swells during pregnancy; when there is disease of the pituitary gland there is alteration in the thyroid body; there is alteration in the thyroid gland when the pituitary body is excised in animals; and when the thyroid gland is atrophied, as in myxœdema, there are changes in the pituitary body. Myxœdema is much more common in women than in men. Nearly all the women who have had myxœdema have borne children, often many children, and often in quick succession. The thyroid gland enlarges during menstruation and during pregnancy in many women. It would seem, therefore, that the disease must in some way have some sexual relation. The author takes up the value of thyroid treatment and the dangers of overdosing. He urges the importance of recognizing early cases. DONALD C. BALFOUR.

**Wilson: The Relationship of the Clinical and Pathological Aspects of Exophthalmic Goiter.** *Northwest Med.*, 1913, v, 1. By Surg., Gynec. & Obst.

This paper is based on the co-ordinated clinical and pathological observation by H. S. Plummer and the writer of a large number of cases of exophthalmic goiter operated on in the Mayo clinic. It sets forth the reasons why (*a*) the clinician is able, from a detailed study of his cases before operation, to state the character and degree of change which will be found in the thyroid gland, and what effect may be expected from removing a portion thereof; and (*b*) the pathologist, from a study of the gland alone, is able to state broadly the clinical diagnosis of exophthalmic or simple goiter and the stage and severity of the disease.

This demonstration of the relationship of the symptoms and pathology of exophthalmic goiter by two men working independently has been made by each summarizing the results of his detailed study in accordance with the following working hypothesis:

1. Certain symptoms of exophthalmic goiter — symptoms of pressure on the trachea and adjacent vessels and nerves — are due to increase in size of the gland largely from its overfilled storage capacity.

2. Certain other symptoms of exophthalmic goiter, the acute toxic symptoms, seem due primarily to something made in the thyroid gland which passes into the general circulation and acts directly on distant vital organs.

3. Yet other symptoms of exophthalmic goiter are the secondary result of (*a*) degenerative changes produced in distant organs after their affection by

thyroid secretion, and (*b*) of the disturbance of the normal interrelations of these organs themselves.

A classification of the histological conditions met with in the thyroid gland is given, with a few examples of its general application as follows:

1. The thyroid gland removed from a young patient in the early months of acute thyrotoxicosis (exophthalmic goiter) shows hypertrophy and hyperplasia of the parenchyma, with a small amount of a thin and but slightly stainable secretion within the acini. The size of the gland and the distribution and degree of hyperplasia are proportionate to the intensity of the symptoms.

2. The thyroid gland from a young patient who has had acute thyrotoxicosis eight months to a year shows a much less active hyperplasia and a much larger amount of a more dense and more stainable secretion in the acini throughout the gland. This pathological picture corresponds to a period of reduction of the intensity of the toxic symptoms, which Plummer has pointed out usually occurs in the latter half of the first year of acute Graves' disease.

3. The thyroid gland in a young patient who has had acute Graves' disease for a year and a half or more usually shows at least three phases of pathologic change scattered irregularly throughout the gland as follows: (*a*) an active parenchymatous hyperplasia like that described in No. 1; (*b*) a reduced parenchymatous hyperplasia with a dense stainable secretion in the acini like that described in No. 2; and (*c*) areas in which the parenchyma cells are atrophied or desquamated from the walls of the acini, which are distended with intensely staining colloid.

4. The older the patient at the time of onset of acute thyrotoxicosis, the more quickly do colloid changes appear in the thyroid.

5. The thyroid from a patient who has somewhat rapidly developed a typical picture of exophthalmic goiter with exophthalmos, after years of simple goiter, presents a picture of advanced colloid change throughout most of the gland, but usually with *thinned* rather than with *desquamated* parenchyma, and with scattered areas of somewhat actively functionating parenchyma which may be markedly hyperplastic. It is sometimes impossible to distinguish this pathologic condition from that described in No. 3.

6. The thyroid gland from a patient who has had symptoms of thyrotoxicosis very slowly developing throughout a period of years, with a predominance of cardiac symptoms and little if any exophthalmos, is usually found to present a histologic picture of (*a*) diffuse adenomatosis or (*b*), more usually, of encapsulated multiple adenomata, almost invariably of the fœtal type. These cases, however, as pointed out by Plummer, are not true exophthalmic goiter.

While the above general statements indicate broadly the lines of relationship which are usually found existing between the pathological and clinical conditions, the author urges the futility of attempting to co-ordinate the clinical and pathological findings on any given case without making of it a special problem, to be studied in minute detail both by a skilled clinician and by an experienced pathologist.

**Meyer: Chronic Malignant Thyreoiditis, Peculiar Granuloma Consisting of Eosinophiles and Plasma Cells Originating in the Right Lobe of the Thyroid** (Eingenartis aus eosinophilen und Plasmazellen zuzammengesetztes, vom rechten Schilddrüsenlappen ausgehendes Granulom). *Frankf. Ztschr. f. Pathol.*, 1913, xii, 116.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

A case is described which clinically presented the picture of Riedel's "ironhard struma," which, in spite of a second operation because of asphyxia (Rehn), died from pressure of the tumor. Even after resection of the manubrium of the sternum a radical removal was impossible; a bilateral post-operative pneumothorax hastened the death. The autopsy showed that a tumor originating in the right side of the thyroid infiltrated the neighboring soft tissues and invaded the anterior mediastinum up to the pericardial sac, while the left lobe of the thyroid remained entirely normal. Histologically no malignant tumor was present. Instead was seen a granulation tissue consisting principally of eosinophiles and plasma cells, which entirely replaced the thyroid tissue of the right lobe. There was a tendency to connective tissue formations; but no necrosis was found. The walls of the small vessels were thickened. In addition there was a circumscribed, small necrosis of the heart muscle. Bacteriologic cultures and examinations for Mushe's granuloma and animal experiments were negative. Tuberculosis and lues could be excluded (clinically K. I. treatment was of no avail). The healthy appearance of the patient, the histological picture, etc., spoke against a malignant granuloma. There was no generalized intoxication (Cachexie). The unaffected left lobe pointed against autointoxication by pathologic products of metabolism of the thyroid, and the great spread of the condition. The cause is probably to be found in an infection which could not be determined.

TOLKEN.

**Marine: Benign Epithelial Tumors of the Thyroid Gland.** *J. M. Research*, 1913, xxvii, 229.

By Surg., Gynec. & Obst.

The author's purpose in this paper has been to review the morphological characteristics of these tumors; to present his observations on the percentage iodine contents in relation to their anatomical structure; to offer a classification that embodies both the morphological and physiological data, and lastly, to discuss the possible bearing of these results on Cohnheim's hypothesis of tumor origin.

Approaching the subject from these angles the author has submitted the following scheme of classification. He has divided these tumors into four groups: 1. Hyperplasia from physiologically differentiated thyroid (simple or parenchymatous goitre). 2. Simple adenoma. 3. Intermediate adenoma. 4. Fœtal adenoma. Each group he

subdivides thus: first, the growing phase; second, the involutionary phase; third, the colloid phase.

The relation of the percentage iodine contents to the anatomical structure and to the physiological phases of these tumors is given exhaustive study and his results may be briefly summarized as follows:

"There are all gradations between strictly non-tumor, simple parenchymatous overgrowths at one end and true fœtal adenomas at the other end of the series.

"By comparing the percentage iodine contents of these tumors with their structure, a general relationship can be made out which is similar to that noted in the non-tumor overgrowths in that they have growing, involutionary, and colloid or resting phases.

"Neither the structure of the tumor nor its iodine content bear any essential relationship to the non-tumor tissue of the same gland save that these tumors are not seen apart from a general hypertrophy or hyperplasia, and therefore are not strictly independent growths. The most marked evidence of independence is seen in the fœtal adenomata, and progressively lessens toward the non-tumor hyperplasias.

"Cohnheim's conception offers the best explanation of the origin of these tumors when one enlarges it to include the conception (1) that there are potential tumor anlagen formed at different physiological ages of the development of the main thyroid mass, and (2) that the stimulus for tumor growth is the same as for that of the thyroid as a whole. These growths may tentatively be considered as 'partial tumors.'" GEORGE E. BEILBY.

**Mori: The Appearance of Thyreotoxic Symptoms in Tumor Metastasis into the Thyroid** (Ueber das auftreten thyreotoxischer Symptome bei Geschwülstmetastasen in der Schilddrüse). *Frankf. Ztschr. f. Pathol.*, 1913, xii, 2.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author discusses the cause of Basedow's symptoms of disease in primary malignant tumors of the thyroid and in thyreoiditis. The explanation is that the tumor growth changes the products of secretion (dysthyreosis) or the primary proliferation causes an irritation which finally leads to malignant degeneration. That secondary metastatic tumors growing in the thyroid can give pronounced clinical symptoms of a Basedow is shown by three cases which are reported at length.

1. *Sarcoma of the pelvis* (Hirschfeld, *Zentralbl. f. Nervenheilk.*, 1906). A secondary typical Basedow resulted. Aside from other metastasis there were three nodules the size of a cherry stone in the thyroid, which itself was not enlarged. 2. *Melanosarcoma of the eye.* There had been an enucleation 15 years previous. Five months before death a metastatic sarcomatosis developed. There was a struma. The pulse was accelerated. Autopsy showed generalized metastasis. The thymus was replaced by a tumor. 3. *Carcinoma of the breast.* The pulse was increased. There was a struma with hyperhydrosis and exophthalmos. Autopsy showed large noduels in the thyroid.

Histologic examination of the involved thyroid showed a simple colloid tissue. The follicles, however, were compressed by tumor or proliferated connective tissue and were flattened out. They were filled with colloid which was scarcely stainable. The characteristic changes in Basedow of a papillary proliferation with high epithelial cells was wanting. On the other hand there was a rich new formation of vessels. The author believes that the altered secretions of the follicles compressed by metastasis were introduced into the circulation in larger quantities and therefore produced thyrotoxic symptoms. HOTZ.

**Bircher: The Etiology of Endemic Goiter** (Die Aetiologie des endemischen Kropfes). *Ergebn. d. Chir. u. Orth.*, 1913, v, 133.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author has made a comprehensive review of the literature and a systematic review of the various theories as to the etiology of goiter. The chapters from Bircher's pen on the connection of goiter with the soil and drinking water are of especial interest. Bircher's demonstration of the occurrence of goiter, especially over marine deposits, while eruptive formations, chalk and sweet water formations in general are free, has been confirmed by newer works (Lobenhoffer and others) but has also been opposed by others (Weichardt and Schittenhelm, Hesse). Bircher demands detailed investigations in connection with exact geologic considerations. He brings new examples of the influence of drinking water. A village was infected with goiter to a high degree by a water supply from "Muschelkalk." He reports attempts to produce goiter in animals by feeding with "Kropfwasser." Bacteriological findings, effect of inorganic and organic components of the water, colloid, radioactive substances, observations of familial goiter in the progeny not growing up in goiter districts, are reported. Pregnancy and other incidental causes are briefly discussed. At the conclusion the theories concerning "goiter heart" are discussed. Bircher found hypertrophy and degenerative phenomena in his rats. Strumectomized dogs show an increased pulse rate after drinking "Kropfwasser." An unfavorable effect on the cardiac activity was also noticed in operated "goiter hearts" after returning to the source of the goiter. The goiter heart is an independent disease picture and included in the conception of cretinic degeneration as a direct consequence of the strumigenose toxins present in the drinking water. HOLTZ.

**Crile: Present-Day Conceptions of the Pathologic Physiology of Graves' Disease from the Surgeon's Viewpoint.** *Cleveland M. J.*, 1913, xii, 15. By Surg., Gynec. & Obst.

The author has drawn his conclusions from 254 cases of exophthalmic goiter. At first, hyperthyroidism following operation was supposed to have

been due to the absorption of the thyroid secretion from the cut area. This was disproved by cauterization of the raw surface and also by packing the wide opening with dry gauze.

Having observed hyperthyroidism to follow fright alone, this factor was excluded by appropriate technique whereby he was able to steal the gland without the patient's knowledge. This reduced the hyperthyroidism 50 per cent.

Furthermore, having seen hyperthyroidism and even death following a fracture in an exophthalmic goiter patient, he next hit on the general theory that part of the hyperthyroidism was due to traumatic stimuli. In Graves' disease there is a low threshold in the brain to all stimuli. Moreover, they have a minimum amount of reserve nervous force. Working along the general hypothesis of the pathologic physiology of surgical shock—namely, that shock was due to driving the motor mechanism of man, leading to the activity of the brain cells and consequent nervous exhaustion—he hit upon the plan of excluding all traumatic impulses from reaching the brain at the time of operation and for several days following by blocking the entire operative field with novocain and quinine and urea hydrochloride. Thus he was able to protect the brain, with its low reserve force of nervous energy, from the stimuli arising from both psychic factors and trauma. This last stage was reached in his 240th operation. By these procedures hyperthyroidism was practically banished.

Every patient had a distinct thyroid enlargement by reason of either hypertrophy, hyperplasia or tumor. After the operation, in every case, within the first day or two the patients experienced subjective relief from nervousness. Lack of mental worry during the convalescence gave a much more brilliant result than when this was present.

The same technique that prevents the so-called hyperthyroidism also prevents the so-called aseptic wound fever of the thyroid patients. Hyperthyroidism is a general disturbance of metabolism, calling forth an increased output of energy. By the above technique, the brain being protected from all such stimuli reaching it, no hyperthyroidism followed.

When the diesase was of long standing and in patients of poor physical structure, results were correspondingly less brilliant. The improvement continued from six months to two years. The ultimate outcome of the patients depended largely on the environment and medical direction during the year following operation. The general surgical viewpoint is as follows:

Every patient should be first given real physical and psychic rest. If not relieved within two months, an early surgical operation will relieve or cure. If the operation is done early, the result is almost certain. If late, the results depend on the amount of damage already done to the central nervous system and the glandular structures in the body.

**Crile: The Kinetic Theory of Graves' Disease.** *Am. J. M. Sc.*, 1913, cxlv, 28.

By Surg., Gynec. & Obst.

Crile discusses the theories of the manner of production of Graves' disease and compares the clinical picture presented to that produced by the emotions, especially fear. He shows that the patient suffering with Graves' disease presents a picture identical in many particulars with that of a person under the influence of great fear. Crile states that fear is a means of preparation for self-defense, either by fight or flight, and that all of the organs are affected — those which are to be actively engaged in the struggle (skeletal muscles, heart, respiratory organs, etc.) are stimulated, while the useless functions are inhibited (digestive, procreative, etc.). Almost exactly the same thing happens in hyperthyroidism.

This line of reasoning, Crile thinks, explains the etiological connection in cases of Graves' disease, which are known to come on after mental strain, worry, shock, etc.—all varieties of fear.

Graves' disease is a disease of the motor mechanism which may be induced by overstimulation of the nervous system, which in turn causes an overproduction of thyroid secretion. Thyroid secretion in turn is an excitant to the nervous system, and thus a vicious circle is established.

Mental and physical rest will frequently break the vicious circle, and to this is due the cures obtained by rest in bed. Were it possible to put the brain at absolute rest — for it to hibernate — a large percentage of the cases of Graves' disease could be cured by this means alone. James F. Churchill.

**Grober: Spontaneous Cure of Basedow's Disease** (Ueber Selbstheilung von Basedowscher Krankheit). *Münch'n. med. Wchnschr.*, 1913, lx, 8.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports a case which was observed from 1906 to 1912. The symptoms of Basedow were very pronounced at first, and decreased each year without treatment, so that objective findings were scarcely demonstrable. The subjective complaints had entirely disappeared. At the same time that the Basedow disappeared there developed an affection of the lung which was probably tuberculous. The author thinks that the symptoms of Basedow were overcome by the appearance of chemically active substances from the lung disease. The author does not attempt to decide whether it is the tuberculin which, according to the French, is the active agent since they regard Basedow's disease as a form of tuberculosis. The products produced probably compensated the harmful products of the thyroid and so caused an improvement of the condition. Lobenhoffer.

**Brown: Conservative Treatment of Tuberculous Glands of the Neck, Based upon Their Pathology.** *Med. Rec.*, 1913, lxxxiii, 12.

By Surg., Gynec. & Obst.

For the past four years the writer has been treating tuberculous cervical adenitis in accord with

a better understanding of living pathology, and applying this knowledge along the lines of physiological surgery rather than what are termed radical methods. The success attained from these more conservative methods points to a sound basis in pathology.

Pathological studies demonstrate, as we should expect on anatomical grounds, that infection of the glands through the blood stream may occur, aside from miliary septicæmia. In a chart of clinical and pathological data, an attempt was made to differentiate by histological picture the hæmatogenous and lymphogenous infections. While in practically every case of scrofula, lesions were found in the marginal sinus and at the periphery of the follicle (probable in the sinus wall), occasionally others lay in the heart of the follicle or but slightly excentric. One fact of paramount importance presents itself, namely, that these patients are suffering not with a local disease, but with a general systemic infection which at this time is held in check by a good resistance.

We first observed this several years ago while doing the block dissection. At that time we were removing, in all cases, the glands and gland-bearing fascia, and yet we always found minute glands following along the vein, so deeply placed that complete removal was impossible. These small pin-head glands were thought to be merely toxic, but on section many were found to be tuberculous. However, in these cases healing occurred by primary union, and the patients are alive and well to-day.

It was customary at that time to treat all small single glands, whether with or without sister glands, first, by removal of the portals of infection (tonsils, adenoids, etc.), and secondly, by simple incision into the suppurating foci. This latter procedure led into many difficulties, since a second infection was often added. It is readily seen that incision into an abscess cavity opens new atria for infection and that the tissues, in their fight to prevent further bodily involvement can no longer carry on the war so magnificently waged before incision.

In order to produce local œdema and cell proliferation, the author produces a Bier hyperæmia by a simple elastic band about the neck for a few hours before operation. Then a very small straight incision is made into the gland, and the contents are evacuated by a dull spoon, using no force or rough manipulation, and being careful not to break through the capsule nor to invade the protective phagedenic zone; and without washing or wiping out the cavity, 2 to 4 per cent formalin in glycerin is introduced and the incision sealed.

Primary healing occurs in 50 per cent of the cases. Of the remaining 50 per cent, 30 per cent have only a serous discharge, which ceases after three or four more injections; and the remaining 20 per cent suppurate, more or less, depending on the delicacy and completeness of the technique.

At the same time this local treatment was started we began a more systematic attempt to increase the general resistance of the patient — forced feedings, 24 hours a day out of doors, and other methods of treatment which were recognized as applicable and beneficial in all cases of tuberculosis. The treatment of these simple cases was so successful that we applied our methods to more extensive gland involvement.

The injection of tuberculin B had little or no effect; but the enzymes of yeast seemed to be the connecting link needed in the treatment. It has been applied in more than 85 cases. Fifteen of these cases were treated until we became satisfied that some more radical method was indicated to start the process of body repair.

Of the other 70 cases, 56 are well without gland involvement; 10 are recent cases under treatment; three were lost sight of after the first treatment; and an infant with both cervical lymph-chains involved died with some intercurrent summer diarrhœa while away from home.

"Radical operation" for cervical glands is a misnomer. No operation for this disease can be radical, since the glands are so numerous that complete removal is impossible. The most we can do is to remove the lymphatic chain involved, with its infected outlying glands and gland-bearing fascia.

**Streissler: Cervical Ribs** (Die Halsrippen). *Ergebn. d. Chir. u. Orthop.*, 1913, v, 280.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

There is not complete unanimity of opinion among anatomists as to the degree of development and type of origin which should determine the applicability of the term "cervical ribs." Though in principle these cervical ribs are traced to disturbances in the development of the germ plasma, we remain quite in the dark as to their final causes. The author defines a "cervical rib" as any formation in the place of the processus costarius of the first to seventh cervical vertebræ — usually the seventh — which is joined to the vertebræ synostotically or by an articulation which exceeds in size a normal transverse process, and which may extend into the soft parts of the neck and even reach the sternum, like a common rib.

He gives a general description of the different varieties of cervical ribs and a detailed description of their parts, supplemented by photographs and skiagrams. He also discusses their relations to adjacent tissues and organs, the musculature of the neck, the nerves, and the pleura. He finds that disturbances, as aneurisms and thromboses, may result from compression of the arteries. Neuritis and disturbances of sensibility and motility of the plexus, especially in the region of the first dorsal and the eighth cervical vertebræ, also occur. More remote signs of pressure may appear in the area of the sympathetic nerve, in the eye, the heart, and the thyroid gland. Pressure on the phrenic nerve will cause diaphragmatic cramps. A striking fact is the frequent association of tuberculosis of the apex of the lung with cervical ribs. This is to be explained by the confinement and deficient ventilation of the

lungs, in the sense of Freund's theory. The connection of cervical ribs with scoliosis is still a matter of dispute. Garré, in assuming this connection, regards it as a scoliosis with very high localization and uncommon rigidity, in which convexity in accommodation to the direction of the cervical ribs is frequently associated with compensatory scoliosis at the border line of the chest and the lumbar vertebræ. Garré explains this form of scoliosis by the influence of mechanical factors, while according to Streissler it is simply a subspecies of congenital scoliosis and its etiological association with cervical ribs is purely accidental. As such, a cervical rib need not necessarily cause disturbances of any kind; but such disturbances may be caused by the growth of the rib during adolescence. Involution of the adipose tissues may take place in old age or after severe illness and not uncommonly results from trauma. Periostitis, curvatures, and fractures may cause pains by pressure on the surrounding muscles. For these reasons this congenital anomaly should by no means be neglected. It calls for therapeutic measures, among which operative intervention deserves preference over the conservative methods. Resection of the rib by the anterior route is by far the most frequent form of the operation, while Streissler employs the posterior.

No deaths have been observed in these operations. In 77 per cent of the cases the complaints were removed and in that sense cure obtained; 13 per cent resulted in improvement, while 10 per cent were failures. It must not be expected, however, that the complaints will cease immediately after the operation; their disappearance after two weeks to two months must even be considered a rapid cure.

COSTE.

# SURGERY OF THE CHEST

## CHEST WALL AND BREAST

**Hadda: Total Congenital Rib Defect** (Der totale angeborene Rippendefekt). *Ztschr. f. orth. Chir.*, 1913, xxxi, 176.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Hadda has gathered 20 cases of total congenital rib defect from the literature and adds 3 cases of his own observation. Unlike a partial defect, the total defect of a rib is a relatively rare finding and may be easily overlooked. It occurs frequently with other developmental defects, especially a high standing scapula and malformations of the vertebral column. The associated spinal curvature brings the patient to the physician. According to the author these anomalies will be less easily overlooked, if every case of scoliosis is examined with the Röntgen rays over the entire thorax.

VON FRISCH.

**Basch: Contributions to the Physiology and Pathology of the Thymus; the Relationship of the Thymus to the Thyroid** (Beiträge zur Physiologie und Pathologie der Thymus; die Beziehung der Thymus zur Schilddrüse). *Ztschr. f. exp. Pathol. u. Therap.*, 1913, xxii, 180.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author studies the disturbances of the growing bones and of the nervous system after experimental extirpation of the thymus and thyroid. The effect of the thymus on the growth of the skeleton is a limited one. After the atrophy of the thymus, the thyroid induces the development of the bones. Electrical hyperirritability in the peripheral nerves develops gradually after resection of the thymus and promptly after excision of the thyroid. The functional parallelism of the thymus and thyroid is seen further according to the experiments of Basch in the similar effect on the action of the pupils following thymectomy and thyroidectomy. Mydriasis after application of adrenalin appears in a thymectomized dog after two or three weeks; after excision of the thyroid in a few hours. It is probably the diminution of the lime salts in the tissue fluids which produces the increase in irritability of the oculomotor nerve and the sympathetic. The function of the excised thyroids cannot be taken up by an increased function of the thymus. The appearance of tetany is only delayed. A decrease in the size of the thyroid results in a loss of weight of the thymus, and vice versa, a large thyroid is accompanied by a large thymus. The Basedow thymus is an expression of the functional synergie of both organs, and is dependent secondarily upon the appearance of symptoms of a disease of the thyroid.

KLOSE.

**D'Auria: A New Contribution to the Radical Cure of Exudative Pleuritis** (Nuovo contributo sulla cura radicale delle pleuriti essudative). *Giorn. internaz. d. scienze med.*, 1913, xxxv, 22.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

D'Auria employs the following method of treatment for extensive pleuritic extravasation. Using Potain's apparatus and making the puncture in the seventh intercostal space on the left side and in the eighth on the right side, he slowly drains off the exudate; he then rinses the pleural cavity with an iodine solution, using the same apparatus. He describes the solution as iodine in sterilized solutio jodurata. For serous exudations he employs a 20 per cent solution and one of 30 to 50 per cent for purulent exudations. The solution is left in the thoracic cavity 5 to 10 minutes and is then removed by means of an aspirator. In serous exudation he has obtained good and rapid results — even in one case of primary tuberculous inflammation of the pleura. In cases of purulent exudation good results could be obtained only where the purulent stage had just begun; otherwise resection of the rib and

opening of the pleura became necessary. The iodine solution, in this case, has an effect similar to that obtained in puncture for hydrocele with subsequent injections of iodine — that is, it causes inflammation. As a result of this inflammation adhesions are formed, and thus the further accumulation of fluid is prevented. In the author's opinion a considerable influence is also to be ascribed to the bactericide action of iodine. HERHOLD.

**Höniger: Tracheostenosis Thymica** (Ueber die Tracheostenosis thymica). *Beitr. z. klin. Chir.*, 1913, lxxxii, 484.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Höniger contributes an interesting case of tracheostenosis thymica. A girl, 4 months of age, suffered from attacks of dyspnœa which at first were relieved by intubation, but later necessitated the resection of a piece of thymus. The skiagraph did not present an enlarged shadow of the thymus, nor was the thymus visible in the judulum at expiration.

However, as the operation resulted in recovery, and as the thymus was even microscopically normal, Höniger discusses the possibilities of pressure by an apparently unenlarged thymus. Either the thymus had already exerted a deleterious influence on the structure of the trachea during the intrauterine period, or increased secretion caused a temporary swelling of the organ. The author recommends intubation as a first measure in such cases.

KLOSE.

## TRACHEA AND LUNGS

**Sehrt: Tracheotomy of Urgency with Special Consideration of the Complications in Goiter** (Die dringliche Kriko-Beziehungsweise Tracheotomie, mit besonderer Berücksichtigung der Kropfkomplikationen). *Med. Klin.*, 1913, ix, 132.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Sehrt reports a method of tracheotomy in cases of goiter and enlargements of the isthmus of the thyroid which causes only a slight wound in the larynx and which can be rapidly and safely executed.

The head of the patient, who may be lying down or sitting, is bent back as far as possible. A distensible hooked cartilage forceps is then forced with firm pressure into the center of the thyroid cartilage near where its lower border can be felt, and pressed as deeply as possible into the angle which is formed by the two plates of cartilage. While the left hand now gradually and firmly draws the forceps toward the chin, thus bringing the trachea out from behind the struma, the direction taken by the trachea should be noted. A knife is then inserted ½ cm. below the point where the hooks of the forceps have fastened into the skin and with firm pressure is forced vertically downward, always holding exactly to the median line of the thyroid cartilage. If the cartilage is resistant because of its calcification, one must gradually, millimeter by millimeter, feel his way downward with the knife, until it pierces the trachea. By this procedure serious accidental injuries are excluded. After cutting the trachea the incision is extended in an upward direction and the prongs of the forceps are distended to permit the insertion of a cannula. In case of calcification of the cricoid cartilage it will not be possible to distend the forceps; in that case the opening must be enlarged by a transverse incision; the cannula is then inserted along the blade of the knife. The wound can now be readily extended and dressed. So far the author has not tried his method upon the living subject.

JUNSSEN.

**Behrenroth: Echinococcus of the Lungs** (Der Lungenechinokokkus). *Ergeb. d. inn. Med. u. Kinderheilk.*, 1913, x, 499.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Consideration of etiology, pathogenesis and pathological anatomy. In the symptomatology the fact is brought out that most patients with pulmonary echinococcus are held to be tuberculous until the characteristic elements in the expectoration leave no more room for doubt. In spontaneous perforation and even in single puncture an urticaria or an eruption simulating urticaria is observed, at times also threatening symptoms, dyspnœa singultus, etc., which are to be regarded as anaphylactic. For this reason the indications for puncture are limited. Explanation of the anaphylaxis. In the chapter on serology the precipitin reaction and the complement fixation method are considered.

The precipitin reaction is carried out as follows: To 12 drops of serum 1 cc. hydatid fluid is added and allowed to stand 24 hours at room temperature. In human beings only 75 per cent are positive. In rare cases, even with absence of the echinococcus, it may be weakly positive. Only a positive reaction is of value.

The complement fixation method is a specific reaction. The hydatid fluid must be obtained from sheep. Their antigen is in the highest degree specific. According to Henius the cyst contents act as antigen at least half a year. The hydatid fluid and watery and alcoholic extracts of the cyst wall may give a positive reaction with the serum of tapeworm carriers. Hence with a positive serum reaction for echinococcus we must also think of the presence of a tænia. HOFFMANN.

**Kellock: A Case of Pneumonotomy for Foreign Body.** *Lancet*, Lond., 1913, clxxxiv, 92.

By Surg., Gynec. & Obst.

The author reports the case of a boy 4½ years old who four days previously had swallowed a shawl pin about 2 inches long. A skiagram showed the shadow of a pin at the level of the third rib on the right side, apparently in the right bronchus, with the point upwards. The day after admission an effort was made to remove the pin through a bronchoscope. On June 12, a low tracheotomy was

performed and an endeavor made to remove the pin through the wound and also through the larynx; on the 15th and also on the 19th this was again attempted but without success. On June 24, under an anæsthetic and with the aid of a fluorescent screen, the author made an attempt through the tracheotomy wound, to remove the pin by means of instruments made out of gum-elastic catheters. At this time the pin was lying almost vertically with head apparently about three-quarters of an inch above the diaphragmatic surface of the right lung. On July 3, an open operation was performed. A square flap consisting of skin and superficial muscles, measuring about 4 inches in width and depth, was reflected backwards, the edges of the flap being parallel to the direction of the ribs and the posterior ends of the upper and lower incisions reaching to within about an inch of the middle line of the back. The flap, consisting of ribs, intercostal muscles, and pleura, was turned completely backwards on the hinge formed by the posterior section of the ribs. A window about 3 inches square was thus made into the pleural cavity.

Two fingers of the left hand were passed into the sulcus between the middle and lower lobes of the lung and the lower lobe pulled outwards and steadied. Directly this was done the tip of the finger of the right hand in the wound in the lung felt the head of the pin, and it was easily extracted with sinus forceps. It was found to be a steel pin 1½ inches in length, with a glass head about one-eighth of an inch in diameter. The child made a rapid recovery after a few days.

DONALD C. BALFOUR.

**Baer: Contribution to the Surgery of Lung Cavities** (Beitrag zur Kavernenchirurgie). *Berl. klin. Wchnschr.*, 1913, l, 107.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The slight chances of a spontaneous cure of large tuberculous cavities, as well as the long duration of such cures, justify surgical procedures. The ideal method is pneumothorax; but this fails if there are pleuritic adhesions. For such cases, the methods of extrapleural thoracoplastic surgery come into question. As large cavities in the apex of the lung cannot be made to collapse either by pneumothorax or thoracoplastic surgery (which is contradicted by Sauerbruch's observations; cf. Sauerbruch u. Elving; "Die extrapleurale Thorakoplastik"), the author has devised another method. This consists in resecting a number of ribs above the cavity and subcostally loosening the parietal pleura, thus giving the cavity a chance to collapse. The cavity left after the lung has collapsed is filled with a paraffin plug, which serves the further purpose of insuring permanence of the collapse.

After experiments on animals and dead bodies, the author employed his method in the case of a young man 23 years of age who presented a large cavity in the right superior lobe. A thoracoplastic operation after the method of Wilms not having brought the desired result, an attempt was made, after resection of the ribs, to cause collapse by the extrapleural thoracoplastic operation. This attempt was successful. A fistula formed, however, as a result of necrosis of part of the wall of the cavity. At a third operation, this fistula was enlarged by means of thermocautery. The cavity was drained for a time and showed marked tendencies to collapse, its walls becoming normal as fresh granulations were formed. The tubercle bacilli disappeared from the sputum and the general condition improved. Further treatment should consist in change of dressings and tamponment of the exterior cavity at gradually prolonged intervals, and light and Röntgen ray illumination. If it is possible to produce proliferation, the cavity should be filled by a plastic operation and the outer wound sutured if necessary.

The condition of the patient subsequently was much improved: the bronchial fistula has closed, the test for tubercular bacilli remained negative, and the patient looked well and was gaining in weight. To anticipate criticism, the author considers the advantages of his method. These are, that in suitable cases extrapleural pneumolysis with secondary plastic closure of the cavity promises good results; opening of the cavity comes into question as a supplemental factor. JEHN.

**Meyer: Artificial Breathing** (Ueber künstliche Atmung). *Ztschr. f. ärztl. Fortbild.*, 1913, x, 11.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Artificial respiration can be effected (1) manually, (2) with apparatus, (3) combined, after stopping of respiration from (1) mechanical obstructions of respiration, (2) poisoning. As the most ideal, that method should be employed which approximates the condition of maximal inspiration and maximal expiration. A purely inspiratory procedure is the method of Marshall-Hall by rolling. Expiratory is the method of Howard by compression of the lower thorax in dorsal position, Shäfer's compression of the lumbal region in abdominal position, and Boland's by pulling both shoulders upward in the same position. Silvester has a combined method. All procedures in abdominal position are unwarranted. Loewy-Meyer obtained 2000 to 3000 cc. air ventilation of the lungs by a modified Silvester method. After the mouth has been cleansed and the tongue tied to the chin, the arms of the patient, who is placed on the ground with the shoulders somewhat lifted, are seized above the elbow and pressed to the ground behind the patient's head; then the grasp is changed and the arms brought forward to the middle of the chest and pressed backward and upward, six to eight times in a minute. Oxygen apparatus are important in diseases of the respiratory and circulatory organs and change of hæmoglobin from poison. The oxygen apparatus are effective only with simultaneous ventilation of the lungs; atmospheric air must always pass besides the oxygen. WETZEL.

## HEART AND VASCULAR SYSTEM

**Lucas: Surgery of the Heart** (Zur Herzchirurgie). *Deutsch. med. Wchnschr.*, 1913, xxxix, 166.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports two successfully operated cases of severe stab and gunshot wounds of the heart. Both cases presented the picture of heart tamponade. The bared heart showed no pulsation, but only a few single fibrillary twitchings. In the first case the anterior wall of the left ventricle showed a perforating wound, while in the second case both ventricles were shot through. On the basis of the experience gained from these two cases, the author recommends the baring of the heart through the area uncovered, since this furnishes an excellent entrance, and an injury to the pleura, in case such does not yet exist, may be avoided. This is especially important in those cases where a pressure apparatus is not handy. Drainage of the heart sac is strongly recommended. In both cases direct massage of the heart proved to be an excellent means for reviving. The conservative method recently advocated for diagnosed or supposed heart injuries is not recommended by the author. He rather favors operation, even in injuries of the pericardium, because of his observations of similar cases where no operation was undertaken and in which the results were fatal. HÄCKER.

**Dunn and Summers: Observations on a Case of Mediastinopericarditis Treated by Cardiolysis.** *Am. J. M. Sc.*, 1913, cxlv, 74.
By Surg., Gynec. & Obst.

Patient was a man aged 29, whose previous history was negative except for diphtheria in childhood. History of present trouble dated back three years.

Typical signs of adhesive mediastinopericarditis with marked cardiac hypertrophy and broken compensation. Compensation regained in three weeks. Ten days later Summers resected the sternal ends and costal cartilages of the left third, fourth, fifth and sixth ribs flush with the sternum, through a U-shaped musculo-cutaneous flap. The exposed area of pericardium and pleura measured 5 x 4½ inches. Recovery, both immediate and remote, was satisfactory.

The authors discuss the varieties and mechanism of adhesive pericarditis. JAMES F. CHURCHILL.

## PHARYNX AND ŒSOPHAGUS

**Lewisohn: A New Principle in Œsophagoscopy and Gastroscopy.** *Ann. Surg.*, Phila., 1913, lvii, 28.
By Surg., Gynec. & Obst.

The unpopularity of the straight œsophagoscopes is due to the fact that they do not adapt themselves to the right angle normally existing between the mouth and œsophagus. In using them it is necessary to adapt the patients to the instrument by forcibly overextending the head. A satisfactory œsophagoscope must fulfil the following three main requirements:

1. The introduction must be possible in the normal position of the head.

2. The instrument must be so constructed that it actually passes into the longitudinal axis of the œsophagus and not at an angle to this axis.

3. The œsophagoscope should be passed downward along the œsophagus under the guidance of the eye to avoid perforations.

Based on these main considerations, the author has devised a telescopic instrument which represents a new principle in the construction of œsophagoscopes and gastroscopes, and may even be applied to bronchoscopes. The instrument consists of two portions — the horizontal part, which lies in the mouth of the patient during the examination, and the vertical portion, composed of a telescope of six separate tubes. This latter can be pushed down into the œsophagus as far as necessary by means of a spring. Attached to the lower part of the upper tube of the telescope are two metal guides, which act as an obturator and materially facilitate the introduction of the instrument into the upper part of the œsophagus.

The examination of the patient can be divided into two stages: 1. The "anchoring" of the instrument in the upper part of the œsophagus. This occurs automatically by means of the metal guides. 2. The passage of the œsophagoscope into the deeper parts of the œsophagus under the guidance of the eye of the examiner.

During the entire examination the patient sits on a chair, holding the head in normal position. When the examination is finished the spring is gently pulled until the telescope is again closed. The closed instrument is then withdrawn from the mouth.

The advantages of this right-angular telescope, as compared with the straight tube, are marked. The most obvious is the fact that the patient is not put into any strained position, but the head is held naturally during the entire examination.

The author discusses the importance of œsophagoscopy for the early diagnosis of cancer of the œsophagus and for the differential diagnosis between œsophageal and mediastinal growths.

A report of the clinical results obtained with the aid of this new instrument gives the data of ten cases, mostly carcinoma of the œsophagus. The pictures obtained during these examinations are given in a colored plate.

In conclusion, the author refers to his experiences with a gastroscope constructed on the same principle.

**Frangenheim: Œsophagoplastic Surgery** (Oesophagoplastik). *Ergebn. d. Chir. u. Orthop.*, 1913, v. 406.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author enumerates the various methods of partial œsophagoplastic surgery of the cervical portion of the œsophagus (the methods of von Hacker, Poulsen, Rokitanzky, and others), and demands that gastrostomy should precede every œsophagoplastic operation. The formation of the œsophageal tube, in partial œsophagoplastic operations, may

be unilateral or bilateral. The chief sutures may be most efficiently covered by employing flaps, with the pedicle either above or below.

The following methods of total œsophagoplastic operation are then described: Bircher's formation of a cutaneous tube from the skin of the chest; Wüllstein's employment of the small intestine and the skin of the chest in animal experiments; Roux's œsophagojejunogastrostomosis; the combination of Roux's and Wüllstein's methods by Lexer; the plastic formation of an œsophagus from the wall of the stomach by Hirsch and by the different method of Jianu; and finally, the employment of the transverse colon by Kelling and Vulliet. Roux's procedure almost always resulted in gangrene of the intestinal flexure which had been shunted and brought out into the wound. The cause for this is to be found not only in compression of vessels and torsion of the pedicle, but also in alterations in the vessels (arteriosclerosis). As the chief objection to the methods of Hirsch and Jianu the author cites the fact that in patients suffering from stenosis of the œsophagus, the stomach is almost always markedly contracted. From such a stomach it would not be possible to resect more than a very small flap, hardly extensive enough to reach as far as the xyphoid cartilage. The skin of the chest lends itself very well to covering defects in the œsophagus. Cutaneous tubes of even 30 cm. in length will be kept sufficiently nourished.

In total œsophagoplastic operations, if the œsophagus is cut through transversely at the throat and if there are impermeable strictures, the aboral end of the œsophagus must be brought out into the wound in the form of a fistula, or extirpated, in order to prevent any stagnation of mucous secretion or food in the neck. If the œsophagus is not completely cut and there is complete stenosis, the accumulated secretion will find an outlet upward and thence pass into the artificial œsophagus. Observations and deglutition tests on human subjects having an artificial œsophagus have demonstrated the functional sufficiency of the new œsophagus. The passage of food is somewhat slower than under normal conditions. BOIT.

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# SURGERY OF THE ABDOMEN

## ABDOMINAL WALL AND PERITONEUM

**Schepelmann: Experiments in Treatment of Peritonitis** (Versuche zur Peritonitisbehandlung). *Med. Klin.*, 1913, ix, 102.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Experiments on 86 rabbits showed that treatment of the peritoneum with lime water because of its bactericidal powers and its effect as a capillary constrictor, is beneficial, but practically does not influence the course of peritonitis. Homologous animal blood does not influence pus formation, but also has no therapeutic value in the prophylaxis or treatment of peritonitis. Injection of heterogenous animal blood is even injurious. The formation of adhesions, however, is increased by injection of either homologous or heterogenous blood. ISELIN.

**Herff: The Prevention of Post-Operative Peritonitis in Cases of Contaminated Laparotomy** (Zur Vorbengung postoperativer Peritonitis bei verschmutzten Laparotomen). *Gynäk. Rundschau*, 1913, vii, 1.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

From 1901 to 1912 Herff had 163 deaths, of which 53 were due to peritonitis. During the first four years he had 3 cases of peritonitis migrans after "clean operations," but this class has disappeared since increased wound protection has been introduced. In unclean cases the author makes use of two methods of prevention: 1. Camphor lubrication (20 to 50 cc. of a 1 per cent solution of camphorated oil) during and after laparotomies which are unclean or in which he has opened an abdominal viscus. This caused a decrease of the vomiting, but did not prevent secondary peritonitis. 2 Hydrogen peroxide (especially Merck's perhydrol diluted 1:2 with water) is used to insure asepsis of the wound. In abdominal hysterectomy, for instance, after the uterus is removed and the pelvis cleaned out, using drainage through the vagina, the cut edges of the peritoneum are clamped and the pelvic wound bathed in 20 to 30 cc. of the diluted perhydrol. After the edges become visible through the foaming caused by the perhydrol, the wound is covered with peritoneum and 10 cc. of perhydrol poured on before closing the abdomen. In closing the wound in the abdominal wall the muscle, fascia and suture material are repeatedly washed with the perhydrol solution. With this procedure the author has had excellent results in the healing of wounds, favorable pulse rate and temperature. In regard to the formation of adhesions following the use of perhydrol, Herff is performing some experiments along that line, the results of which are not ready. BAYER.

**McGavin: The Results of Filigree Implantation.** *Proc. Roy. Soc. M.*, 1912, vi, 103.
By Surg., Gynec. & Obst.

The following assumptions are made by the author: (1) That Bassini's operation for inguinal hernia is an excellent method and can be applied successfully to most cases in young adults. (2) That when recurrence takes place, a cure by this method is highly problematical. (3) That in the event of failure, such further attempt, by increasing the amount of stretched cicatrix, distinctly increases the prospect of recurrence. (4) That the application of a truss is a confession of failure, a disappointment to the patient, and very often the cause of the

enlargement of the hernial ring. (5) That ventral hernias in the stout and elderly are uncontrollable by any form of retention apparatus, because the apparatus cannot prevent the spread of the hernia laterally in the deeper planes of the abdominal wall.

Since the introduction of filigree transplantation, 314 hernias of all kinds, excepting femoral hernia, have been operated upon by the author. Of these 263 were inguinal and 51 were umbilical or ventral. Of the inguinal cases 106 were treated by filigree implantation, and of the umbilico-ventral 40; adding to these 20 cases of inguinal transplantation done on both sides, the total number of implantations of all varieties is 166.

Of the inguinal hernias, all but six were in men, many of whom were engaged in the hardest manual labor, viz., stoking. Of the 51 umbilical and ventral hernias, only 15 were in men and 36 in women, many of the latter being enormously stout. Many of the patients had repeatedly been operated upon ineffectually. Since advanced age is considered as compromising a successful result, it is interesting to note the ages of the patients. Of the 146 cases of implantation, 11 were over 60 years of age, 27 were between 50 and 60, 48 were between 40 and 50, the remainder being under the age of 40.

The cases were dealt with by implantation for one or more of the following reasons: either they were of large size, of long standing, in elderly subjects, were affected by the atrophy of truss pressure, exhibited a wide hernial gap, or they occurred in men whose work was unusually heavy.

Of all these cases only two suffered a recurrence. Both were of the inguinal variety. The first was one of the early cases, which suppurated, and the iliac section shifted its position. A succeeding operation proved successful. The second case was due to the placing of the pubic section of the filigree upon extraperitoneal tissue, which proved too loose and lax to hold it in position. It shifted and the hernia recurred, after one year, between the filigree and the pubic spine. The operation was repeated, but it has only recently been performed. These are the only cases of recurrence, and many of the operations were done more than six years ago.

The presence of the filigree has given rise to no untoward symptoms: there has been no pain, discomfort, swelling, nor atrophy of the testis, nor has there been any evidence of the excessive formation of adhesions, even below the level of the semilunar fold of Douglas, where the filigree has rested actually upon the peritoneum.

The following conclusions are reached by the author:

1. Few, if any, hernias, whether inguinal or ventral, can now be considered uncurable.

2. In filigree implantation is to be found the only true radical cure that we know of at present.

3. The use of filigrees is attended by a slight increase in the danger of sepsis.

4. Suppuration is not an indication for the removal of a filigree.

5. Wires displaced into sinus should be removed without disturbing the filigree.

6. No belt or truss should ever be applied on the top of an implanted filigree.

7. For the reduction of very large inguinal hernias and the avoidance of paralytic ilius the Trendelenburg position should be used, the abdomen opened and the bowel withdrawn from within, aided by pressure from without.

8. In ventral hernias following appendicular abscess it is absolutely essential that the appendix be removed before implantation if this has not already been carried out.

9. Although in ordinary cases the lines elsewhere laid down with regard to the size, shape and position of the filigree should be adhered to as closely as possible, it must be remembered that cases will arise which will tax to the utmost the ingenuity of the surgeon. In such cases hidebound rules are worse than useless.

10. It is important in dealing with gigantic hernias that every precaution should be taken for the comfort and safety of the patient. There must be skilled assistance, full facilities for asepsis, a good light and plenty of it, and, as a matter of choice, spinal analgesia should replace general anæsthesia. JAMES H. SKILES.

**Wellington: Meckel's Diverticulum, with Report of Four Cases.** *Surg., Gynec. & Obst.*, 1913, xvi, 74. By Surg., Gynec. & Obst.

After stating that this abnormality is present in only about 2 per cent of the human race, the author discusses its embryology and its different anatomical relations as regards size, location, and attachment to surrounding structures. He believes its existence a more serious menace than is an appendix, and advises its removal when found, if the case will permit. His cases were briefly as follows:

Case 1. Male, aged 50; had had an acute abdominal crisis of two days' duration, with symptoms of obstruction. A diagnosis of probable appendicitis was made, but at operation a loop of bowel was found constricted by a Meckel's diverticulum, which was attached to the umbilicus. Following operation, a fæcal fistula developed and the patient died two weeks later.

Case 2. Male, aged 7; since birth had had a fistulous opening at the umbilicus discharging mucus. The tract was dissected out and was found to be continuous with a Meckel's diverticulum. Patient recovered.

Case 3. Male, aged 58; had symptoms of an acute appendicitis. Operation revealed a gangrenous diverticulum, which was removed. Patient died three days later.

Case 4. Male, aged 55; had been sick two days, with abdominal pain, and a diagnosis of acute

appendicitis was made. Operation showed an acutely inflamed Meckel's diverticulum. This, as well as the appendix, was removed. The diverticulum was found to contain the breast bone of a small fowl, one prong of which had nearly perforated. Patient recovered.

The author was able to collect 326 cases of disease involving Meckel's diverticulum. There were 144 cases of intestinal obstruction (intussusception and volvulus not included); 59 of intussusception; 50 of acute diverticulitis; 27 of hernia; 21 in which the diverticulum was open at the umbilicus; 9 of volvulus; 6 of perforation in typhoid; 2 of perforation from trauma; 2 of tubercular ulceration; 3 of prolapse of bowel; and 1 each of pelvic tumor, perforating ulcer and cyst. Of these cases, a little more than three-fourths were males, and the mortality was nearly 60 per cent.

The statistics are then discussed in more detail, and a complete bibliography is found at the end.

## GASTRO-INTESTINAL TRACT

**Rövsing: A Case of Total Gastroptosis with Dilatation of the Œsophagus** (Eb Tilfälde af total Gastroptose med Dilatation af Spiseröret). *Hosp.-Tid.*, 1913, vi, 1.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports a case of gastroptosis in a patient who was admitted in a condition of extreme emaciation. By means of sound and Röntgen examination a dilatation of the œsophagus just above the diaphragm was determined. Besides this an extensive gastroptosis was found with the stomach close to the symphysis. At the operation one saw that both the cardiac and pyloric parts of the stomach had descended considerably, the former to such an extent that a part of the œsophagus 8 cm. long was found immediately below the diaphragm. No tumors or ulcerations were discovered. The dilatation of the œsophagus had been produced by traction and kinking at the hiatus. Hepatopexy, gastropexy and gastrostomy were performed. The patient made a good recovery and after she had gained considerably in weight the gastrostomy wound was closed. When discharged 4½ months after the operation the diverticulum had diminished to half its size and the patient was again able to eat in a natural way. Rövsing cites this case as proof against the assumption of Grödel and others, that gastroptosis as a result of the loosening of both points of attachment of the stomach is inconceivable.

Kinking of the œsophagus as a result of gastroptosis described here for the first time, may according to the author perhaps explain the so-called cardiospasm with dilatation of the œsophagus. Rövsing has noticed repeatedly that the vomiting in gastroptosis has completely disappeared after elevating the stomach by gastropexy or by an abdominal binder. Carl P. Permin.

**Skeel: Report of a Case of Fibroid of the Stomach with Perforating Ulcer; Transgastric Resection; Recovery.** *Am. J. Obst.*, N. Y., 1913, lxvii, 421.
By Surg., Gynec. & Obst.

A male, aged 48, previously well, was taken acutely ill with hæmatemesis and malaria. Ten days later symptoms of perforation appeared. Operation revealed a round fibroma of the posterior stomach wall at the junction of the antrum and the pylorus. At the base of the tumor was a perforation of the mucous and muscular coats. A resection of that area of the stomach which held the fibroid was done through an incision in the anterior wall under gas anæsthesia. Profound shock resulted, but recovery ultimately followed. N. Sproat Heaney.

**Barling: Hypertrophic Stenosis of the Pylorus in Adults.** *Lancet*, Lond., 1913, clxxxiv, 231.
By Surg., Gynec. & Obst.

The author reports two cases of this condition. The first was a male, aged 27, with symptoms typical of pyloric stenosis—periodic vomiting of large quantities of fluid, evidence of stasis, loss of weight, and severe constipation. The illness began three years before admission. At operation the stomach was comparatively small, but its muscular coats were very hypertrophied. A firm, massive thickening involved the whole of the pyloric canal and encroached a little on the antrum. The thickening felt like a solid muscular structure such as the body of the uterus; it was nearly 3 inches long and about 1½ inches thick. A posterior gastro-jejunostomy by the no-loop method was performed, and an easy recovery followed. The patient continues well and in full work nearly 4 years after the operation.

The second case was a girl, 17 years of age, who had been admitted into the author's wards complaining of pain in the upper abdomen and vomiting. Her illness dated from a time six months previous to admission to hospital. The girl was evidently very ill, more so than one would generally expect to find in a case merely of simple stenosis of the pylorus, and he thought, from the character of the vomit and from the patient's general condition, that it was possible she was suffering from a stenosis in the small intestine rather than at the pylorus.

*Operation.* The pyloric canal presented a dense thickening sharply limited at both ends and resembling exactly the hypertrophic stenosis of young infants. The peritoneal surface was quite smooth and free from any indication of ulceration; there was no nodulation and no fixation on adjacent parts. The usual operation of posterior gastro-jejunostomy was performed. On the eleventh day optic neuritis was observed, and on that day tubercle bacilli were found in the urine. The patient died in five days, apparently from tubercular meningitis.

No facts were obtained suggesting the presence of stenosis in the patients' lives at an earlier date than that recorded in the preceding notes.

Donald C. Balfour.

**Frédet and Tixier: Hypertrophic Pyloric Stenosis in an Infant; Gastro-Enterostomy at the Age of 13 Days; Cure** (Sténose hypertrophique du pylore chez un nourrisson; gastro-entérostomie à l'âge de treize jours; guérison). *Bull. et mém. d. l. Soc. med. d'hôp. d. Paris*, 1913, xxviii, 868.
By Journal de Chirurgie.

This is the fourth infant which Frédet has operated for hypertrophic pyloric stenosis. Vomiting appeared on the ninth day and the operation was performed on the thirteenth. A transmesocolic posterior gastro-enterostomy (by von Hacker's method) was performed. A vicious circle appeared, which necessitated reoperation four days later. The distended afferent branch of the jejunum was anastomosed with the empty efferent branch. Some vomiting persisted, but finally disappeared after gastric lavage. The infant at the age of 109 days was in perfect condition.

In connection with this case, Frédet and Tixier discuss the therapeutic points involved. The two operations to be considered are, first, gastro-enterostomy, and secondly, extramucosal pylorotomy followed by pyloroplasty. Frédet claimed in his earlier articles (Frédet and Dufour; Frédet and Guillemot) that pyloroplasty was the operation of choice when possible. Stiles's earlier statistics also favored pyloroplasty. Since then the more recent statistics of Scudder and Richter have shown the results of gastro-enterostomy under a more favorable light. Moreover, Fallot's researches on infantile gastro-enterostomies have shown that there is a remarkable adaptation of the digestive functions to the new anatomical condition created by this operation. At present the authors tend rather to favor gastro-enterostomy, and hold that pyloroplasty should be done only in the less difficult cases. The surgeon's success, however, depends first of all on the condition of the patient when it reaches his hands, and this in turn is chiefly a question of the number of days which are allowed to elapse from the time of onset of the symptoms until surgical assistance is sought. MAURICE CHEVASSU.

**Frédet: Hypertrophic Muscular Stenosis of the Pylorus in an Infant; Presentation of a Case Operated in 1907** (Sténose du pylore par hypertrophie musculaire chez nu nourrisson; présentation d'un enfant opéré en 1907). *Bull. et mém. d. l. Soc. méd. d'hôp. d. Paris*, 1912, xxviii, 789.
By Journal de Chirurgie.

Case 1 (reported by Dufour-Frédet). Operated at the age of two months; the patient is now 5½ years old and in excellent health. Case 2. Pyloroplasty at the age of 30 days; now 5 years and 3 months old. Case 3. Infant, 96 days of age, operated late and in a cachectic condition. Gastro-enterostomy. Death by shock 20 hours later.

The pathological specimen from this last case was very characteristic. The narrowing of the pyloric canal was due in part to an excessive development of the musculature, especially of the circular layer, and partly to overgrowth of the mucosa, the intricate folds of which filled up the lumen of the abnormally long and narrow pyloric canal. The microscopic section showed no signs of an inflammatory process. The hypertrophy was manifestly due to congenital malformation. Frédet opposes Weill's theory that the primary lesion is a parietal gastritis whose later effects rise to the clinical picture of a progressive pyloric stenosis.

From the symptomatic point of view this case is also atypical. The usual history of two stages in the disorder was given. The first stage is characterized by vomiting, whose distinguishing features are its frequency (at each nursing), its violence (projectile), the constant absence of bile, and the small quantity of the vomitus. It is accompanied by gastric peristalsis. There is a marked and rapid loss of weight. In the second period, the stomach dilates; vomiting occurs at longer intervals; the quantity of vomitus is large; weight remains stationary. The pyloric tumor is difficult to make out, in spite of its volume and its firm consistency.

From the therapeutic point of view, the lighter grades of stenosis, which are amenable to medical treatment, must be distinguished. This treatment falls under the following heads:

1. The reduction of any inflammatory process, which may be superadded to the muscular hypertrophy, by diet, gastric lavage, regulation of the nursing, substitution for milk of more easily digested food, etc. 2. The control of the spasmodic phenomena by atropin, etc. 3. The maintenance of nutrition while the stomach is completely or partially inactive by means of injections of serum, gavage, etc.

On the other hand, when the early symptoms are very severe the stenosis is presumably very marked and probably is due to a primary malformation. In these cases, medical treatment, if attempted, should certainly not be unduly prolonged, because of the increase in the operative risk if the patient is too much enfeebled. MAURICE CHEVASSU.

**Rammstedt: The Operation for Congenital Pyloric Stenosis** (Die operation der angeborenen Pylorusstenose). *Zentralbl. f. Chir.*, 1913, xl, 3.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author recommends as the operation of choice, in the congenital hypertrophie pyloric stenoses of the new-born, the invagination of the thickened muscle ring up to the uninvolved mucosa, whereby the constriction and spasm are removed at one stroke. This method is exceedingly simple and can be carried out very rapidly. In 2 cases, the author reached the desired result immediately, whereas in 3 cases treated by Weber's extramuscular pyloroplastile (2 Weber, 1 author) the pylorus became patent only after a week (probably as a result of abnormal folding of the mucosa). The operative method previously employed (gastro-enterostomy, open pyloroplastile) are too extensive for the weakened infant and the stretching of the pylorus according to Loreta is too uncertain. The author has not

observed any disadvantage from the exposure of the mucosa in either of the two cases; covering with omentum seems to him unnecessary after his experience and by prolonging the time of operation jeopardizes the life of the miserable infant. The author recommends immediate operation and in doubtful cases exploratory laparotomy, as soon as a diagnosis of pylorospasm with pyloric tumor has been made in the new-born. A short simple laparotomy is not too dangerous for the weakened infant. Report of a case history. BLEZINGER.

**Pagenstecher: Gastropexy by Means of the Ligamentum Teres** (Gastropexie vermittels des Ligamentum teres). *Münchn. med. Wchnschr.*, 1913, lx, 24. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Plication of the ligamentum gastrohepaticum to relieve gastroptosis is impossible in many cases because of its delicacy and fragility. Pagenstecher in hanging up the pars pylorica (gastroptosis according to Grödel is chiefly a pyloroptosis) uses a resistant material: the ligamentum teres. The direction of the pull is about the same as in the plication, because the ligamentum teres is inserted into the portal entrance close to the ligamentum gastrohepaticum. Pagenstecher severs the ligamentum teres directly at the umbilicus, frees the lower part of the ligamentum suspensorium hepatis (whose free margin is formed by the ligamentum teres), from the anterior abdominal wall to the anterior margin of the liver. Thus a flap is formed, wider in front than behind, which can be conveniently turned to the left and posteriorly to be fastened to the anterior aspect of the stomach. A torsion of the stomach around its long axis is just as impossible by this method as by the plication of the ligamentum gastrohepaticum. Pagenstecher advises against using a strip of free fascia in place of such a suspensory band. COHN.

**Fletcher: Subtotal Gastrectomy for Gastric Atony.** *Am. J. Surg.*, 1913, xxvii, 10. By Surg., Gynec. & Obst.

Fletcher states that in a review of the literature of gastric surgery he did not find a recorded case of gastric atony made worse by attempts at drainage, in which gastrectomy had been deliberately undertaken for the purpose of cure. His patient, a female aged 25 years, was subjected to the following stomach operations: (1) A posterior gastro-enterostomy for drainage of a stagnant, atonic stomach. (2) A second gastro-enterostomy, three inches from the first, made because the primary stoma was supposed to give insufficient drainage. (3) A third gastro-enterostomy at the most dependent part of the fundus on the anterior surface. The extensive adhesions so rotated the stomach as to make the fundus appear the lowest part of the viscus. (4) Pylorectomy and tearing down the third (fundus) anastomosis indicated because of great pain and projectile vomiting. (5) Subtotal gastrectomy — the removal of all except a small pouch of the fundus, together with ten inches of the jejunum attached to the posterior wall of the stomach. The jejunum was anastomosed into the œsophago-gastric pouch. The proximal end of the duodenum was closed and the distal end, represented by four inches of the jejunum, implanted into the jejunum well below where it entered the stomach pouch. Recovery.

Fletcher remarks that when dealing with gastric neuroses there is some excuse for an occasional error on the clinical side of diagnosis — that the clinician is occasionally justified in advising an exploratory incision; but there is no excuse for the surgeon who deliberately drains an atonic stomach. He says the indications for stomach drainage are clearly cut, and the safe and sane rule in gastric surgery is, "When in doubt do not perform gastro-enterostomy." His case was remarkably improved six months after the subtotal gastrectomy, but he quotes Mayo to the effect that "operations upon atonic stomachs in neurasthenic individuals are seldom if ever followed by satisfactory results lasting for any length of time."

**Bartlett: The Use of a Murphy Button to Effect Duodenojejunostomy after Gastrojejunostomy.** *Ann. Surg.*, Phila., 1913, lvii, 81. By Surg., Gynec. & Obst.

When a modern gastro-enterostomy is complicated by the course of a "vicious circle," the shorter the loop the more difficulty we experience in performing a secondary entero-enterostomy.

In the case under discussion the author was unable to proceed in the customary way, hence an opening was made in the anterior wall of the stomach, through which the posterior gastro-enterostomy opening could be plainly seen. The half of a Murphy button was thrust without difficulty through this into each intestinal loop, and the new opening in the stomach sutured. It was now no trouble to draw the transverse colon forward and telescope the two halves of the button, after making a tiny incision over each.

The patient did not vomit again before leaving the hospital.

**Von Haberer: Arterio-mesenteric Occlusion of the Duodenum** (Der arteriomesenteriale Duodenalverschultz). *Ergebn. d. Chir. u. Orthop.*, 1913, v, 467. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author considers arterio-mesenteric occlusion of the duodenum an anatomical compression of the distal end of the duodenum by the root of the mesentery. This arises through tension in a downward direction at the root of the mesentery. The superior mesenteric artery thus forms a sharper angle with the aorta and the duodenum; passing in this angle is compressed. If to this tension is added pressure from the ventral surface in a dorsal direction the displacement becomes more fixed.

The clinical picture is typical. The pulse rate increases suddenly, usually accompanied by obstipation, increased peristalsis of the stomach, and

severe vomiting. It may end by collapse. Acute dilatation of the stomach may be superimposed. If untreated, death may result. The Schnitzler position usually brings recovery. Lean, emaciated individuals with enteroptosis, abnormalities in the mesentery, etc., are predisposed to the disease. The onset is very sudden, i. e. following a hearty laugh as in one of the author's cases. Operations, especially those causing a change in the position of the organs in the abdominal cavity, may be the cause. If dilatation of the stomach is the most prominent feature of the clinical picture, the arteriomesenteric occlusion may be primary or may follow post-operative acute dilatation of the stomach. Acute post-operative dilatation of the stomach can be present without duodenal occlusion. A chronic form of the disease is also recognized which gives symptoms characteristic of intestinal obstruction.

WALTHER HANNES.

**Urrutia: A New Case of Jejuno-Colic Fistula Due to a Peptic Ulcer of the Jejunum Following Gastro-Enterostomy** (Nouveau cas de fistule jéjuno-colique par ulcération petique du jéjunum consécutive à une gastro-entérostomie). *Arch. d. mal. d. l'appar. dig. e. d. l. nut.*, 1912, vi, 680.

By Journal de Chirurgie.

The patient was 48 years of age and had suffered for fifteen years from pain which came on late after meals. In 1910 indubitable signs of pyloric stenosis were present. Ramonede then performed a posterior gastro-enterostomy, and rapid improvement was observed.

After this, the patient used no discretion in diet or in the use of alcoholic liquors. In September, 1912, he was again much emaciated and suffered from diarrhœa; there were fifteen or twenty stools a day. The breath had a fæcal odor and the vomitus, which rarely occurred, had the same characteristic. Succussion splash was present in the abdomen at a moment when the stomach was empty, as determined by the tube. Aspiration during the fasting period sometimes yielded a thick yellowish liquid with a fæcal odor. The test meal showed hyperacidity. X-ray plates were made, which pointed toward a fixation of the greater curvature. The bismuth shadow was extended and drawn out toward the left.

*Operation.* Adhesions were broken up. The transverse colon in its middle portion was then found adherent to the jejunum, which was much dilated and filled with fluid. The jejunum extended from this point of adhesion toward the left iliac fossa. These jejuno-colic adhesions were broken up. The gastro-jejunal anastomosis was then seen to be still intact, but 3 cm. below it there was a perforation of the jejunum, which was in juxtaposition to a similar perforation on the posterior surface of the transverse colon. The edges of the defects were thick, but friable. The two perforations were closed separately; recovery was uninterrupted.

J. OKINCZYC.

**McGuire: The Successful Removal of Over Eleven Feet of Small Intestine.** *Surg., Gynec. & Obst.*, 1913, xvi, 40. By Surg., Gynec. & Obst.

That a patient can have gangrene of over eleven feet of small intestine, as a direct sequence of the ordinary "sore throat," that diagnosis can be made sufficiently early to permit of successful removal, and that such extensive removal can be made without permanent harm to the individual, make the following case of particular interest.

The patient was a young man of 20 years, in good health until April 1, 1912, when an infection of his throat occurred. This was of no great severity, but was accompanied about the fourth day with constipation, cramp-like pain all over the abdomen, and in a few days with vomiting. April 9th vomitus had a foul odor; on the 10th was distinctly fæcal.

On entrance to the hospital, the same day, he vomited a large quantity of fæcal material. Leucocytes 15,000, temperature 99°, and pulse 119. The urine showed a slight trace of albumin, with negative microscopical findings. Palpation showed a distended abdomen, but no mass. Immediate operation revealed extensive gangrene of the ileum, due to mesenteric thrombosis. The involved bowel was removed, both ends were closed, and a lateral anastomosis was made between the cæcum and remaining ileum.

The patient had seven stools on the fourth day without catharsis, and from six to eight on the succeeding days up to the tenth. On this day he suddenly went into collapse, later passing a large quantity of blood from the rectum. From this day his convalescence was uninterrupted, the number of stools gradually decreasing.

At first he was placed upon a diet rich in starches and sugars, and was given opium to control the frequency of the stools. Later, under the ordinary hospital diet, he rapidly gained in weight, and the diarrhœa ceased without the administration of opium. The change in the number of stools was doubtless due to his improved physical condition.

The removed bowel was measured, after the mesentery had been cut away, and found to be 336 cm. in length. The discrepancies in the literature regarding the effect of removal of large sections of bowel suggest some error in the different methods of measurement. To determine this fact the intestinal canal of several fresh autopsies were measured after different methods. Eleven feet of small intestine were measured in situ, the usual method in operative reports. This amount was then removed and measured with the mesentery attached. The average length was ten feet and nine inches. The mesentery was then divided close to the bowel, the intestine placed in a straight line without traction, and the average length was ten feet and six inches.

After careful search, the author concludes this to be the second largest resection of intestine in the American literature, and the tenth largest yet reported.

The patient was seen February 1, 1913. He has one large stool each morning, feels well, and now weighs 148 pounds, a gain of about 30 pounds.

**Katch, Gerhardt, and Borchers: Contributions to the Study of Intestinal Movements; Report No. 2** (Beiträge zum Studium der Darmbewegungen: Mitteil. 2). *Ztschr. f. exp. Pathol. u. Therap.*, 1913, xii, 237.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

In a previous paper, the authors report the technique of their operation of inserting a celluloid abdominal window, through which observations were made. The physiological movements of the various parts of the rabbit's intestine (small intestine, cæcum, colon, sigmoid, and rectum) were observed. There are two kinds of movements in the small intestine — peristalsis and pendulum. The movement in the proximal end of the colon seems to be mainly one of the haustra. This part of the intestine is Böhm's "pill machine." The intestinal content is concentrated ultimately in the lower portion; the separated balls of fæces are approximated one to the other like pearls on a necklace. The formed masses are separated from one another by contraction rings. Experiments were tried to determine what effect physical stimuli would have. Cold, in the form of ice laid on the window or applied as an ethyl chloride spray, causes an increase in tone, loss of motion and anæmia of the parts. Heat, in the form of hot air applied to the window, caused hyperæmia and increase in the pendulum and peristaltic movements. Heating above 50° C. causes an arrest of movements and a serofibrinous exudate glues the affected parts of the intestine together. This phenomenon is called sterile overheating peritonitis. It would be impossible to cause it by the therapeutic application of heat through the skin without causing serious damage to the skin. Massage causes an increase in peristalsis only if an intestine was in a previous state of irritability; otherwise only intense hyperæmia is seen. Although Sanders was able to get contractions of the rabbit's intestine in sodium chloride bath by applying electricity, the authors failed to get an increase in the movements of the intestine. All these experiments were substantiated by observations on the intestines of an old lady who had an abdominal hernia and whose abdominal skin was atrophic, non-sensitive and transparent.

**Katsch and Gerhardt:** *Ibid.*, Report No. 3, p. 253.

The action of the following groups of reagents was observed through the abdominal window: Vagus stimulators — pilocarpin, physostigmin; vagus inhibitors — atropin; sympathetic stimulators — adrenalin, nicotin, caffein, pituitrin; opium alkaloids — morphin, pantopon, opon, apocodein. After giving pilocarpin there is instantly an increase in the pendulum and peristaltic movements. The rate is increased; the contractions are exaggerated, irregular in sequence and without purpose; more energy is consumed and less accomplished. A slight hyperæmia becomes apparent at the same time. Physostigmin has the same action. The authors believe that this vasomotor action is transmitted by the way of the vagus. The antagonistic action of atropin in small and large doses was not detected. Intravenous injection of ½ to 12 mg. produced only a quiescence. Atropin has an effect on the tone and quiets the motor centers of the intestine. Injections of adrenalin cause an instantaneous cessation of all intestinal movements and extreme anæmia. It acts much more quickly than atropin, due to the rapid dissociation of the former, and on this account rectal injections only affect the rectum and not the small intestine. Nicotin shows the same action on the sympathetic system, and is observed only after giving large doses. Caffein causes temporary anæmia and cessation of movement. Pituitrin brings about a marked stimulation of intestinal movements and a temporary anæmia, which is followed by a hyperæmia. These increased movements have, however, something co-ordinate about them not found with other vagus stimulators. After giving morphin, there is an initial increase in the movements followed by a slow quiet rhythm. Pantopon and apocodein hydrochloride act in the same manner.

**Katsch and Gerhardt:** *Ibid.*, Report No. 4, p. 290.

Fear, pain, and unpleasant odors cause an instantaneous cessation of the intestinal movements. This is accomplished by anæmia due to the contraction of the splanchnic vessels. Joy has the opposite effect, the motility being increased. This is probably a reflex action by way of the vagus nerve.

MÜLLER.

**Wrigley: Acute Intestinal Obstruction Due to Volvulus of the Cæcum.** *Lancet*, Lond., 1913, clxxxiv, 166. By Surg., Gynec. & Obst.

The patient, aged 29, had been in good health, except for three attacks of appendicitis, the last being five weeks before the present illness, when she was operated on and her appendix removed; uneventful recovery. She was seized with acute abdominal pain in the region of the umbilicus, followed by vomiting and profuse diarrhœa. She stated that she vomited greenish fluid and was purged every few minutes, but had not passed flatus for some hours. Twelve hours after onset, she was admitted to Manchester Royal Infirmary. She looked extremely ill — features pinched, tongue dry and furred, temperature 100° F., and pulse 114. On inspection, abdomen was found to move freely with respiration, and a large mass the size of a cocoanut was seen in right iliac and umbilical regions, and in this situation waves of peristalsis occasionally occurred. Palpation of abdomen produced vomiting. There was slight rigidity and extreme tenderness. Rectal examination revealed great tenderness on right side of Douglas' pouch.

The laparotomy disclosed an enormously distended cæcum, and a considerable part of the ascending colon rotated, anticlockwise, around its long axis one complete twist, and then acutely flexed, so that the cæcum was lying transversely in the abdomen, with the fundus of the cæcum just beyond the middle line above the brim of the pelvis. The entire cæcum, part of the colon and the terminal part of the ileum were resected. Patient made a good recovery.

Comer and Sargent have analyzed 57 cases of volvulus of the cæcum and recognize three anatomical varieties. The author classifies this under the acquired variety. C. H. DAVIS.

**Andrews: Appendix Abscess Discharging Pus into the Urinary Tract.** *Va. M. Semi-Monthly*, 1913, xvii, 499. By Surg., Gynec. & Obst.

In this interesting paper Andrews details four unusual cases of appendiceal abscess and reviews several more from the literature. His cases were all of a chronic variety, the patients having suffered from repeated attacks. They came into the hospital with marked urinary disturbance, and pain, frequency and decided pyuria were prominent symptoms. Operation in all cases revealed an appendiceal abscess in immediate relation to the bladder or renal pelvis, and in one case the appendix itself emptied into the bladder by way of a direct sinus. In his second case the appendix lying anterior to the renal pelvis was adherent to it. At the time of operation no definite sinus formation could be determined, but urine discharged through the lumbar wound for two weeks following intervention.

The cases are of particular interest in view of the fact that such etiologic factors are frequently overlooked, and patients are treated merely for purulent processes occurring in the urinary tract itself.

J. S. EISENSTÄLT.

**Graham: Primary Cancer of the Vermiform Appendix.** *Edin. M. J.*, 1913, x, 30. By Surg., Gynec. & Obst.

The author thinks that although primary carcinoma of the appendix is rare, it is of much more frequent occurrence than is popularly believed. MacCarty and McGrath collected 5000 cases from the Mayo clinic, 22 of which, or 0.44 per cent, showed primary carcinoma.

The author has found, in a collection of 172 cases of primary carcinoma of the appendix, that the distinctive characteristics are (1) the benign nature of the growth, (2) the early age incidence, and (3) the type of cell, which is most commonly of the spheroidal type.

Six cases are reviewed in the article, and the salient features of these cases are: (1) In 4, operation was performed for symptoms of appendicitis. (2) The age of the patient in all the cases was under 30 years. (3) The tumor in 4 was situated at the tip and in 2 in the middle third. (4) The tumor has a characteristic yellow color. (5) The lumen in all cases was obliterated at the site of growth, and signs of old appendicitis were found in these areas. (6) No metastases or enlarged glands were observed.

It is interesting to note that the youngest case was that of a young woman 21 years of age, operated by Mr. Cotterill in March, 1909, who is still enjoying perfect health, nearly four years later. The tumor in her case resembled microscopically a scirrhous type of cancer, with more cellular tissue than usual and having an invasion of the mesentery by cancer cells.

The author believes, with Letulle, MacCarty and McGrath, that cancer of the appendix is closely associated with chronic appendicitis and obliteration, because in contradistinction to cancer in other parts of the alimentary canal, the appendices are always occluded and no trace of the lumen in the affected area is found. In all the cases the site of the tumor was in an area of chronic inflammation and irritation, as a kink, concretion, or fibrosis.

Lastly, Graham concludes that in a certain number of cases the irritation of isolated tubules or mucosa undergoing obliteration may excite cancer growth.

Graham, in summarizing, thinks that the cancers are derived from the glandular epithelium and that the yellow color is due to the fat in the cells. Also that the tumor in 64.3 per cent of cases was at or near the tip of the appendix. The sphenoidal celled cancer occurs in 73.8 per cent in a series of 182 cases, the average age being 27.2 years, and this growth is the most benign, metastases being found in only one case. The adenocarcinoma comprises 18 per cent of all cases, and more often shows metastases in the cæcum and other abdominal organs. The average age for this type is 39.5 years. From the above it would seem that the microscopic picture would somewhat govern the prognosis.

EUGENE CARY.

**Parks: A Simple Method of Introducing the Purse-String Suture for Covering the Stump of the Appendix.** *J. Am. M. Ass.*, 1913, lx, 29. By Surg., Gynec. & Obst.

The suture is begun at the mesenteric side of the appendix, a bite being taken to include the vessels near the base and continued away from the mesentery, far enough from the base of the appendix to insure a pocket in the cæcum sufficiently large to hold the stump. Bites are taken in the wall of the cæcum at points which may be illustrated by using the numerals on the face of a watch. Take 12 o'clock as the mesenteric side and introduce the needle, pointing it away from the mesentery at 12 o'clock, 10, 2, 8, 4 and 6 o'clock. The free ends of the suture are drawn on, and the stump of the appendix automatically disappears. The free ends are tied and the purse-string is complete, with a sufficient number of approximating points to insure good coaptation. LEO DWAN.

**Duroux: The Pathological Torsions of the Large Intestine and Their Surgical Treatment** (Les torsions pathologiques du gros intestin et leur traitement chirurgical). *Rev. d. gynéc. e. d. chir. abdominale*, 1913, xix, 319. By Journal de Chirurgie.

The torsions which occur normally during the embryonic development of the large intestine are grouped about the area of distribution of two arteries, the superior and the inferior mesenterics. The same general division holds true in a consideration of the pathological torsions. The author takes up in turn the torsions occurring in those parts of the large intestine which are supplied by the superior mesenteric artery (the cæcum and the ascending and transverse colon) and those torsions which affect the descending and sigmoid colon, whose vascular supply is derived from the inferior mesenteric. The commonest and best known form of colonic volvulus is that of the sigmoid; cæcal volvulus and volvulus of the transverse colon follow in the order named. They occur in the proportion of eighteen cases of sigmoid to one of cæcal volvulus. Volvulus of the transverse colon is commonly associated with either cæcal volvulus or volvulus of the sigmoid. Its occurrence alone is a rarity.

I. Cæcal volvulus (torsion of the cæcum and of the lower portion of the ascending colon). Duroux distinguishes three varieties:

(1) Simple cæcal torsions (that is, cæco-ascending colon).

(2) Complex cæcal torsions. These include the cæcal torsions which involve also either the lower end of the ileum or the whole of the jejuno-ileum, and those cæcal torsions in which a portion or the whole of the transverse colon is implicated.

(3) Complete cæcal torsions (jejuno-ileo-cæco-transverse-colic). This is really a volvulus of the embryonic umbilical loop. Gubé called it "jejuno-colic volvulus."

1. *Simple cæcal torsions.* The mechanism in these cases may be pivoting of the cæcum on a transverse axis, the base of the cæcum thus rising toward the epigastrium (cæcum erectum of the Germans). It is in these cases that the various positions are found that Wilms and Klose have characterized under the head of "cæcum mobile." In addition to the movement of pivoting, the cæcum may also undergo torsion about its vertical axis or about its mesentery. The first type of torsion is only produced in cases in which the cæcum is adherent, while its base is free and in most cases very much dilated. The torsion may be clockwise or anticlockwise. The torsion about the mesentery is found in cases in which the cæcum has a secondary mesentery which has been formed by the stretching of those retrocæcal peritoneal leaves which are usually adherent to the posterior wall. If this were a primary mesentery, its continuity with the meso-colon would inevitably involve the ileum in the torsion, and we should be dealing with one of the cases which have been classed under complex torsion.

2. *Complex cæcal torsions.* In these cases the mechanism includes pivoting only secondarily; the rotatory movement is the dominant one. This is chiefly rotation about the mesocæcum, which is uninterruptedly continuous with the meso-ileum. Rotation about the cæcal axis is only possible when the adhesion of the colon has been incomplete, leaving the whole of the cæcum and the lower portion of the ascending colon free and mobile. The ileum offers no resistance to this rotary movement; if the rotation is from left to right it is carried anterior to the cæco-colic segment; if from right to left, it passes posteriorly to the latter.

3. *Complete cæcal torsions.* These torsions can occur only in cases where there has been an absence of the usual processes of fusion of the mesentery of the umbilical loop with the parietal peritoneum. The upper limit of the intestine involved in the process may be at the duodeno-jejunal angle, though the duodenum itself may be involved if its mesentery is not adherent. The lower limit may be the hepatic flexure, the middle portion of the transverse colon, or the splenic flexure. The degree of rotation may be from 180 to 360°, or even more.

In all these torsions there is a marked distention of the portions of the intestine comprised in the volvulus. This is shown by the presence of the cæcum in umbilical and inguinal hernias.

When the cæco-colic segment undergoes torsions about its own axis there is only slight interference with the mesenteric circulation, and the intestinal wall may remain in viable condition for several days; but this is not the case where torsion has occurred about the mesentery. The twisting of this structure brings about a real vascular obstruction, and the signs of gangrene are more or less early added to the phenomena of obstruction.

*Etiology and pathogenesis.* While rare in France (18 published cases), cæcal volvulus appears to be more frequent in certain other countries (Scandinavia and Russia). It comprises only 10 per cent of the cases of volvulus, while sigmoid volvulus includes 50 per cent and volvulus of the ileum 34 per cent. It is less common in women than in men (150 men to 70 women). Its pathogenesis is dependent upon the presence of two factors: mobility and distention (influence of vegetable diet). This cæcal distention may also result from the retraction of peritoneal bands at the hepatic flexure of the colon.

*Symptoms.* Although a cæcal volvulus may occur suddenly without premonitory symptoms, more commonly prodromal pains, colic and gurgling occur in the cæcal region together with localized distention. Radiography shows that the bismuth meal remains in the distended cæcum for 12 or even 24 hours. There are frequently attacks of obstipation, with intermittent diarrhœa.

When the volvulus is completed it manifests itself by the occurrence of very severe pain, which lasts about ten minutes and then abates, only to reoccur somewhat less severely. The symptoms of obstruction, especially vomiting, then appear. At

the end of a few hours, a localized prominence of the abdominal wall is usually noted, either in the periumbilical region or in the left hypochondriac and umbilical region. Over this prominence peristaltic waves are seen. The tumor has a tympanitic resonance, and during the periods of remission yields a distinct hydro-aëric note. After a misleading period of remission, during which the local symptoms of complete obstruction persist, the signs of peritonitis due to the perforation of the loop, become evident. Death occurs at the end of a period varying from 3 to 8 days. The course may, however, be shorter (24 hours) or more prolonged (15 to 20 days).

*Diagnosis.* The diagnosis is difficult and is not usually made unless volvulus is proven. More commonly the condition is mistaken for appendicitis, twisted ovarian cyst, or intussusception.

*Treatment.* This must be surgical. If gangrene is not yet present the volvulus must be reduced; but in the presence of gangrene resection must be performed. The reduction of the volvulus calls for delicacy in manipulation, for the distention is such that tears may be produced by moderate traction. If the resistance encountered in reducing the volvulus is too great, the loop should be punctured or incised or a rectal tube inserted as high as possible. After reduction, typhlopexy has been recommended to prevent recurrence of the volvulus. If the walls of the loop show changes which point toward difficulty in evacuation of the intestinal contents, a cæcostomy or an appendicular fistula should be established. Entero-anastomosis is illogical if the volvulus is not reduced, and is inferior to simple typhlostomy in any case. Where reduction of the volvulus is accomplished, 60 to 70 per cent of the cases recover. In the cases of gangrene where resection is necessary, only 30 to 33 per cent recover.

II. Torsion of the transverse colon. These comprise (1) complex torsions, that is, those associated with volvulus of the cæcum and small intestine or with sigmoid volvulus; (2) simple torsions, which are more rare, since Duroux has been able to find only ten cases reported (Guinard's case is the only one in the French literature).

The simple torsions may occur about the arc of the colon or about the axis of the mesentery. Sometimes there is present a peritoneal band about which the colon wraps itself. Excessive length or distention of the transverse colon predispose to torsion. Pregnancy and the Trendelenburg position in laparotomy are mentioned as accessory factors. The symptoms of volvulus of the transverse colon are analogous to those of other cases of volvulus. The onset may be sudden or progressive. Rather characteristic in certain cases are the attacks of pain and periumbilical colic with temporary obstruction and vomiting. When the volvulus is complete enormous distention of the middle portion of the abdomen occurs, which, however, is not equally distributed on the two sides. Peristaltic waves are sometimes seen. Occlusion by kinking of the splenic flexure and stenosing cancer of the transverse colon must be considered in the differential diagnosis. The surgical treatment is by choice the reduction of the volvulus, if the presence of gangrene does not necessitate resection. It is well, after reduction, to perform fixation of the colon to the parietes in order to avoid recurrence. Transverse colostomy, or cæcostomy, is often advisable as a secondary operation, but it may be dispensed with when, by means of the rectal tube, it is possible to rid the distended loop of its gaseous contents.

III. Torsion of the sigmoid. Complete volvulus of the pelvic colon is represented in those cases in which torsion of the loop occurs about the axis of the mesosigmoid. The fixed point is the rectosigmoid portion, and the rectum is carried either anteriorly or posteriorly. Certain changes in the mesentery favor the production of the volvulus, especially the retraction due to mesosigmoiditis, which tends to approximate the points of pelvic attachment of the ends of the sigmoid. Certain congenital abnormalities, such as the lack of fusion of the iliac mesocolon and the congenital dilatation of the sigmoid, predispose to this accident.

The strangulated loop may attain an enormous size and occupy the entire abdomen. The longitudinal muscular bands and the haustra disappear. Perforation, by gangrene, usually occurs rather late in spite of the apparent thinness of the walls and sometimes involves the higher portion of the colon first. From the symptomatic point of view it is worthy of note that sigmoid volvulus is commonly preceded by a long period of constipation, with occasional attacks of incomplete occlusion due to the beginning of torsion. The pain at the onset is localized in the left iliac fossa and in the pelvis; later it becomes more generalized. Vomiting is inconstant and occurs late. On the other hand, obstruction is usually complete. The meteorism is most marked in the iliac fossa and in the left flank. Ordinarily no peristaltic waves are to be seen in this region. If surgical interference is not undertaken, perforation and peritonitis occur. In certain cases death results from cardio-pulmonary embarrassment caused by the enormous distention which pushes up the diaphragm.

Treatment is entirely surgical. Sigmoidostomy alone should not be performed, because, while temporarily relieving the symptoms, it does not affect the cause of the occlusion. Detorsion and resection are the two rational procedures. Detorsion is sometimes difficult to effect on account of the extreme distention of the loop. In these cases the loop should be aspirated or incised, or relief may be obtained by the introduction of a rectal tube. After detorsion has been accomplished the loop may or may not tend to a recurrence of the volvulus. Colopexy and coloplication, which have been performed to avoid this contingency, have not always been successful in their aim. For this reason the tendency is to perform a resection of the sigmoid, either at once or as a secondary operation in ac-

cordance with the condition of the patient. The later results following resection appear to be superior to those simple detorsions. When gangrene is present resection is indubitably necessary, but in these cases, of course, the prognosis is less favorable. GEORGES LABEY.

**Watson: Surgical Tuberculosis of the Colon, Rectum, and Anal Canal.** *Practitioner*, 1913, xc, 220. By Surg., Gynec. & Obst.

According to Watson, tuberculosis may be met with in the large intestine: (1) as part of a general miliary infection; (2) as a general or localized ulcerative colitis, when it is usually secondary to tuberculosis elsewhere; (3) as a localized hyperplasia in the cæcum or at one of the flexures of the colon.

Hyperplastic tuberculosis of the colon is as a rule a primary manifestation. In 88 out of 100 cases collected by Lockhart Mummery, the cæcum and ascending colon were the parts involved. The prominent characteristic of this condition is tumor formation, resulting in a close resemblance to malignant disease. The tumor is movable, associated with colic and, it may be, obstruction. Fixation is a late condition, as is secondary suppuration. When the specimen is examined the most conspicuous feature is the great thickening of all the coats of the bowel, uniformly distributed round lumen, which makes the bowel resemble a solid tube, and to which the name "gas-pipe colon" has been given. Stenosis and stricture, either general or localized to one portion of the tumor, ultimately occurs.

The symptoms of this condition are those of carcinoma of the colon, except that the presence of blood in the stools and progressive loss of flesh somewhat favors a diagnosis of cancer.

The treatment consists in establishing a diagnosis by exploratory operation, in the relief of obstruction by colostomy or short-circuit, and the extirpation of the tumor whenever possible.

Tuberculous ulceration of the colon is nearly always secondary to tuberculosis elsewhere in the body. Unlike tuberculous ulceration of the small intestine, which is mainly a disease of childhood, tuberculous ulceration of the large intestine is most commonly met with in adults, secondary to advance pulmonary tuberculosis.

The cæcum and ascending colon are most commonly affected, and although the ulcers tend to encircle the bowel they rarely produce stricture or obstruction.

The symptoms of tuberculous ulceration do not differ from those of other forms of ulcerative colitis. The association of diarrhœa with blood and pus in the stools, combined with phthisis, should lead to a diagnosis, which will usually be confirmed by a microscopic examination of the discharge.

The treatment of this condition can only be palliative and symptomatic, if active disease of the lungs coexist. In the rare cases in which this condition is met with independent of pulmonary disease, treatment by means of appendicostomy and irrigation should certainly be tried, though without much hope of permanent benefit.

Tuberculous ulceration of the rectum and anal canal commonly results from extension from the colon. The ulcers are often situated on the upper surface of Houston's valves, where they are easily missed with the sigmoidoscope, unless carefully looked for. Fistula in ano commonly results from the invasion of the ischiorectal fossa by ulceration.

Treatment consists in appendicostomy, combined with irrigation both from above and below. Some temporary improvement may result from ionization with a solution of zinc sulphate.

Tuberculosis of the anal skin consists of small grayish nodules close to the anal margin, which if not promptly excised lead to ulcer formation.

Tuberculous fistula in ano is characterized by extensive undermining of the skin, which is blue and boggy, with little or no induration of the surrounding parts. The internal opening between the sphincters is usually large, ragged and ulcerated, and the external opening, instead of preserving a button-like granulation, is patent and irregular.

In cases of tuberculous fistula with no evidence of tubercle elsewhere, early radical operation is most important to remove a possible source of general infection. Either local or spinal anæsthesia should be used, and the patients not confined to bed after the first day, nor should they be kept in the recumbent position, but should have plenty of fresh air, sunshine, and good food. R. W. MCNEALY.

**Yeomans: Cæcosigmoidostomy: an Operation for Short-Circuiting the Colon.** *Am. J. Surg.*, 1913, xxvii, 23. By Surg., Gynec. & Obst.

Yeomans calls attention to the important work of stouchard, Metchnikoff, Combe, and Lane in colonic Basis as a fruitful source of intestinal autotoxæmia, and states that there still remains a large group of patients who do not respond to hygienic, dietetic, medical or mechanical therapy. These have a real mechanical obstruction to the passage of the bowel contents — angulations, flexures, bands, adhesions, chronic volvulus (cæcal or sigmoidal), or stricture — and require surgical treatment. Some short-circuiting operation will usually suffice. The objection to the ileosigmoidostomy of Lane is that it leaves the entire colon as a blind pouch for fermentation and autotoxæmia.

Yeomans proposes cæcosigmoidostomy by a broad lateral anastomosis with a double row of sutures, and reports three cases with perfect results. The first operation was performed two years ago on a woman 48 years of age who had a giant sigmoid. This case is illustrated by three radiographs. The second patient was a man aged 19, with obstruction of the transverse colon not relieved by a lateral ileosigmoidostomy previously performed. The third case, a woman aged 23, suffered from inveterate constipation and autotoxæmia, the result of a true cæcum mobile of Wilms.

Drainage of the colon at its most dependent points, namely, cæcum and sigmoid, is the correct surgical principle. Anatomically this is impossible in some cases, but radiographs of the colon and sigmoidoscopy will usually enable the surgeon to determine the practicability of this procedure in advance of operation. The writer concludes that, when feasible, cæcosigmoidostomy is a safe and easy operation. It drains the entire colon at its most dependent points without leaving any blind pouches; anchors and drains the movable cæcum and the giant sigmoid, as well as chronic volvulus of sigmoid; and cures permanently constipation due to mechanical obstruction (obstipation) at any point in the colon from cæcum to apex of sigmoid.

**Heller: The Present Status of the Combined, i. e. Abdomino-Dorsal, Extirpation of the Carcinomatus Rectum** (Der gegenwärtige Stand der kombinierten, i. e. abdominodorsalen Exstirpation des carcinomatösen Mastdarms). *Ergbn. d. Chir. u. Orthop.*, 1913, v, 488.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In spite of the consensus of opinion at the German Surgical Congress in 1906 against the Kraske combined rectum extirpation, the number of operations by that method, according to Heller, have increased. From the compiled statistics of the years 1910–1912, Heller reports a mortality of 29 per cent, of which 36 per cent were men and 15 per cent women. The best results were obtained by W. Mayo, with 18 per cent, Goepel with 15 per cent, and Rottmar with only 6 per cent mortality. The ideal combined method consists in a primary abdominal dissection of the tumor and a secondary extirpation from below through the coccyx route with implantation of the oral end of the intestine into the sphincter after the method of Hochenegg. The principal modification of the operation is the formation of an artificial anus after abdominal dissection of the tumor and amputation of the peripheral end of the rectum (Quénu, Hartmann). Heller regards the combined extirpation of the rectum not as a measure of necessity, but as one of choice. It is indicated in carcinoma with its upper borders in the pars pelvina recti, that is, above the muscular diaphragm, because of its direct relation to the lymphatic gland of the upper hæmorrhoidal vessels. He advises it also in spreading tumors, especially with adhesions to the organs of the urogenital tract. The method is contraindicated in generalized carcinomatosis, old age, very sick patients, arteriosclerosis and adiposity. The advantage of the combined method, and especially the sacral method, is the possibility, according to the author, of performing a radical operation because of the accessibility of the lymphatic glands, the good exposure of the field of operation of the tumor, and the discovery of abdominal metastases, and the possibility of mobilizing the colon while conserving the relationship of the vessels, and drawing it down to the sphincter. Finally, asepsis can be retained to the end of the operation. Heller described in detail the method of conserving the vessels, to avoid gangrene of the oral end of the intestine following rectum resection. Section of the superior hæmorrhoidal artery, advised by Rehn, permits the intestine to be pulled down without tension. The ligature is to be placed above the origin of the arteria sigmoidea (Sudeck's critical point) in order to retain the collateral circulation. The anatomical landmark is the level of the fifth lumbar vertebra above the promontorium (Rubesch). In arteriosclerosis, or when the mesosigma is short, ligature of the superior hæmorrhoidal artery immediately below the origin of the left colic artery does not always, according to Sudeck, prevent gangrene. In such cases it is advisable not to draw down the intestine to the sphincter, but to make an abdominal anus.

GEBELE.

**Crile: Biological Interpretation and Surgical Aspects in Painful Indigestion.** *Lancet-Clinic*, 1913, cix, 94. By Surg., Gynec. & Obst.

In certain abdominal lesions, pain is a leading phenomenon. The author postulates that pain is one of the phenomena of a stimulation to motor action, which in turn is to protect the organism against injury and aid in ridding it of injurious substances.

With regard to association of pain with infections, it is found in general that wherever local infection would be spread by muscular action or where fixation of the parts by continued muscular rigidity would be an advantage, there is pain. Wherever the resistance to infection is by chemical processes or wherever it is in such locations that muscular contractions can in no way assist in localizing the disease, pain is absent. The peritoneum is in itself wonderfully equipped to overcome infection, and especially if that infection be localized. A given point of peritoneum may be fixed by holding the muscular abdominal wall still and rigid, and by holding the muscular intestinal wall still and rigid against a large volume of gas, and by quickly throwing out exudation. In the extremes of life, i. e. the infant and the aged, few symptoms of the disease may be shown, the reason being that they have little or no pain and slight if any tenderness or muscular rigidity. The principle involved is the same as that underlying the freedom from pain under narcotics or anæsthetics.

The author discusses in detail the diagnosis and differentiation of the main types of painful, chronic indigestion, interpreting many symptoms, especially the painful ones, upon the basis of biological adaptation. Of these there are two great types—infection and obstruction.

Following a conference with his colleagues of the staff of Lakeside Hospital in reference to all of the sections of the abdomen performed by them, the following conclusions were drawn:

Certain lesions of the abdominal hollow viscera cause pain and indigestion; whereas lesions of the solid viscera usually cause no primary pain; lesions

of the hollow viscera causing no pain are rarely benefited by operation; most cases of painful indigestion, if not duodenal or gastric ulcers, are extragastric; the cause of the pain is the stimulus to muscular action; pain is a damaging agency to health; acute abdominal pain is usually surgical; these phenomena obey a general biologic law of adaptation; the adequate stimuli of many of them act through the brain; when the brain is disconnected these phenomena disappear, and thus may the mortality and the morbidity be placed measurably further under the surgeon's control.

Abdominal pain, therefore, is associated with infection and obstruction, each a strong stimulus to adaptive visceral activity. Thus a biologic interpretation may be put on the phenomena of infection and obstruction. FLOYD RILEY.

## LIVER, PANCREAS, AND SPLEEN

**Elperin: A Case of Congenital Defect of the Cystic Duct Due to a Mechanical Cause** (Ein Fall von angeborenem Defekt des Ductus choledochus aus mechanischer Ursache). *Frankf. Ztschr. f. Pathol.*, 1913, xii, 25.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Elperin adds to the 95 cases of the above anomalies found in the literature the case of a female child which died 16 days after birth. The very complete autopsy records show that the liver was greatly misshapen externally. The left lobe was especially large. The gall-bladder was represented by a rudiment 1 cm. long, in which lay a colorless cheesy mass. There were no dilated gall passages in the liver. In the duodenum there was a papilla into which the pancreatic duct opened. On sectioning the region of the papilla serially, a system of canals was found which was clothed with high cylindrical epithelium and evidently represented the developmental center of the absent cystic duct. The branches of the canal ended blindly in the submucosa, in connective tissue which was not inflammatory. The author thinks that the anomaly of form of the liver must be considered in the genesis of the malformation in which the liver is forced upward and the tender cystic duct is markedly compressed. Beneke thinks the malformation can also be produced by constriction of the epithelium of the gall passages from the epithelium of the intestine at this point. Lues was excluded as the etiology of the anomaly because the Wassermann reaction was negative. Other inflammatory processes as a cause could not be demonstrated. The newer investigations in embryology point against a theory of vitium comparationis primæ, since a lack of development of the gall passages would have to go hand in hand with that of the liver. That a defect of the cystic duct has been observed in several children of the same parents, Elperin does not regard as due to congenital lues, but rather to abnormal conditions in the uterus of the mother. NORDMANN.

**Dugan: Surgery of the Gall-Bladder and Ducts.** *J.-Lancet*, 1913, xxxiii, 36. By Surg., Gynec. & Obst.

The diagnosis of typical gallstones, colic, or obstruction of the common duct is easy, but latent stones and stones pocketed in the cystic duct not entirely closing the same is another story.

Complete obstruction of the cystic or common duct brings on urgent symptoms immediately, but latent stones or stones pocketed in the cystic duct may cause only vague uneasiness or simulate various stomach affections. There is one particular place in the cystic duct very prone to harbor pocketed stones, i. e. the first one-fourth inch of the duct, particularly in women with a narrow costal arch.

Another class that furnishes a fruitful field for mistakes is that wherein very small stones are confined to the pelvis of the gall-bladder in the presence of large quantities of bile, especially if in a young patient with decided and serious appendix trouble to mask the symptoms. The author mentions a case of a young girl operated for appendicitis in which the gall-bladder was examined as a matter of routine. He failed to find any stones, and was about to close the abdomen when his assistant's more sensitive finger discovered a stone low down in the bladder pelvis.

Statistics show 30–35 years as the average age of beginning trouble, but late literature and the author's own experience lead him to place it much earlier.

Although the danger to life is not as imminent in gall-bladder disease as in appendicitis, the very serious sequelæ of neglected cases should cause us to give our patients a more careful prognosis than has been done in the past.

The cases of infection and impacted stones in the common duct with cholemia give a higher mortality by reason of the fact that the cholemia greatly reduces the resisting power and the upper abdomen does not bear infection nearly as well as the lower half.

In view of these very serious conditions in delayed cases, the author concludes that in the past sufficient emphasis has not been given to the danger of delay.

**Nesselrode: Etiology and Pathology of Infections of the Biliary Tract.** *Med. Herald*, 1913, xxxii, 12.
By Surg., Gynec. & Obst.

In presenting this paper the author has reviewed much of the experimental work of the various observers of this question. He emphasizes the fact that this pathological condition owes its origin to infection, and urges that in the logical treatment of this condition the treatment of the element of infection is the all essential indication.

After reviewing the evidence in favor of the various suggested routes by which the bacteria may reach the gall-bladder, he offers the following conclusions in favor of the portal vein being the chief route of entry: (1) Adami and Ford have proven that there is at all times a passage of bacteria through

the healthy intestinal wall. (2) It has been proven by Dörr that bacteria introduced through the blood may be demonstrated within a few hours, not only in the urine but also in the bile. (3) The organisms which most commonly infect the gall-bladder are but rarely found in the duodenum. (4) An infection of the biliary tract above a ligated duct could not come by the ascending route. (5) Cases of enteritis have been produced experimentally by the feeding of arsenic, etc.; then some easily recognized organism, as the bacillus prodigiosis, introduced into the bowel, and within a few hours this organism has been recovered by culture from the bile contained in the gall-bladder. If the organism is still virulent after having successfully passed the mucosa of the intestine and the liver, it will give rise to an acute cholangitis or cholecystitis, and the history and symptoms will be those of any acute infection, with the localizing symptoms in the upper right abdomen.

There is one point worthy of mentioning here, and that is that an acute infection in the gall-bladder does not give rise to severe symptoms as an infection of the same virulence elsewhere. This is explained by the absence of lymphatics, and also by the very great elasticity of the gall-bladder.

The intelligent treatment of cholelithiasis presupposes a clear conception of the pathology of the disease, the means of treatment at our command, and the objects attainable by their use. To attempt to dissolve by internal medication a gallstone that is insoluble, or to cause the passage through the biliary ducts of a gallstone when the ducts are impassable to a stone of its size, to attempt to cure supposed gastric symptoms by measures directed to the stomach when the symptoms are caused by adhesions about the gall-bladder,— this is as futile as it is irrational.

**Fink: Symptomatology and Diagnosis of Gallstones; Indications for Surgical Treatment** (Symptomatologie und Diagnostik des Gallensteinleidens; Indikationen zur chirurgischen Behandlung). *Prag. med. Wchnschr.*, 1913, xxxviii, 1.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author bases his statements on his experience in 40 cases operated during the year 1912. He divides the cases according to the pathologic-anatomic findings, because he thinks the procedure at operation is only a subjective expression of the indication, and is not the cause for the division. The clinical symptoms can be divided into two groups: those arising from a disease of the bladder and those from the liver and common duct. In the first group the author puts 22 cases, and in the second 18. The author's indication for operation in the first group is occlusion of the cystic duct by a stone, infection of the gall-bladder with its sequelæ, spreading of the inflammation from the bladder to the surrounding tissues, and gallstone colic, which through its persistence and intensity produces a loss of weight and well-being of the patient. He points out three routes of predilection for the spread of gall-bladder inflammation to the surrounding structures: (1) from the neck of the bladder toward the liver; (2) from the neck of the bladder toward the ligamentum hepatoduodenala, and (3) from the base of the bladder to the free abdominal cavity. He illustrates these groups by characteristic symptoms from his cases. He divides the symptom-complex of the cholelithiasis into six groups: (1) Cases of stone in the bladder, with frequently recurring attacks of great intensity but without precise objective findings; (2) empyema with symptoms of local inflammation; (3) empyema with perforation toward the liver, severe pains, sensitiveness and enlargement of the liver; (4) cholecystitis, with spread of the inflammation to the neck of the bladder and the common duct, with repeated symptoms in the latter and in the pancreas; (5) cholecystitis, with perforation of the gall-bladder into the free abdominal cavity; (6) cholecystitis, with spread of the inflammation to the abdominal organs, constipation and tympanitis, etc. An exact differentiation of icterus due to spread of the inflammation along the ligamentum hepatoduodenala and that due to an occlusion of the common duct by a stone is frequently impossible. The history, repeated attacks of icterus, and the duration of the disease may give some clew. In occlusion of the common duct by a stone, the author performs an ectomy with resection of the bladder and choledochotomy with drainage. The author regards gallstones with patent cystic duct and gall-bladder without infection as suited for medical treatment, i.e., a cure at Carlsbad, since such cases can become quiescent and even be cured. The mortality in operative cases is 7.5 per cent. BURK.

**Hofmeister: The Methodic Dilatation of the Papilla Duodeni and the Choledochoduodenal Drainage** (Die methodische Dilatation der Papilla duodeni und die Choledochoduodenaldrainage). *Zentralbl. f. Chir.*, 1913, xl, 5.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author has thought out a new device, which he uses in choledochotomy with soft stones, when he is not certain that all fragments have been removed even by careful washing and scraping. (1) The author is not satisfied with a single sounding of the pap. duodeni, but dilates it systematically with urethral bougies (Charr. 22–24). (2) The choledochus is drained with a tube completely filling its lumen and leading all the bile to the exterior. Through this thick tube even several days after the operation one can introduce a fine Nélaton for irrigation. (3) Through the dilated pap. duodeni a tube 6–8 mm. thick is pushed into the duodenum a distance of 4 cm. and fastened in the choledochus incision by means of a long thread. Over this duodenal drain another wide tube is pushed up to the choledochus and at the same time the long choledochus sutures are led through this to the exterior. Next to the tube is inserted an iodoform gauze bag. By this procedure the dilatation of the papilla provided by the operation is preserved. Medicaments

and nutritive material may be introduced without disturbing the stomach, and the bile flowing from the other tube into an outside receptacle may be reintroduced into the duodenum at the time of the meals. Finally the fistula acts as a prophylactic enterostomy to relieve the intestine in the first days following the operation. BRÜNING.

**Deaver: Pancreatic Lymphangitis and Chronic Pancreatitis.** *J. Am. M. Ass.*, 1913, lx, 1.
By Surg., Gynec. & Obst.

The most important subject occupying the attention of abdominal surgeons to-day has to do with the elucidation of the pathogenesis, the recognition of the symptoms and the discovery of adequate means of treatment of diseases of the pancreas.

It was observed that the pancreas was apt to be involved in disease of the gall-bladder or common duct. In 99 cases of cholelithiasis, which the author operated during 1911, the pancreas was found hard and nodular in 30 instances, in 9 moderately enlarged, in 3 unusually soft, and in one the lesion was more acute and accompanied by fat necrosis. In 45 per cent of these cases, therefore, some alteration of the pancreas had taken place.

Pancreatitis is more prevalent in males, while gall-bladder disease is more common in females. This lack of parallelism arouses suspicion that pancreatitis must be due to other factors than the simple infection by continuity along the bile-ducts to the pancreatic duct. There are three other possible avenues by which infection may reach the pancreas: (1) through the general circulation; (2) by direct contiguity from adjacent structures, and (3) by way of the lymphatics.

1. The rarity of pancreatic involvement in systemic and pyæmic processes, which are relatively so frequent, speaks against this as a common mode of infection. Again, conditions in which the pancreas is found involved are not characterized by bacteræmia, though it may occasionally occur.

2. Infection by direct contiguity occurs most often in slowly perforating ulcers of the stomach and duodenum.

3. The lymphatics, in Deaver's opinion, play a conspicuous rôle in conveying infection to the pancreas. The pancreas, by reason of its retroperitoneal situation, bears a close relation to the thoracic duct and to many trunks which empty into it from the visceral lymphatics.

It must be conceded that in many inflammatory conditions of the abdomen there is a retroperitoneal lymphangitis which is fraught with possibilities of injury to the pancreas lying almost directly in its path. Lymphatics emerge at various points along the surface of the pancreas and run to the regional glands, to neighboring trunks or plexuses. It has been observed in chronic pancreatitis, associated with other visceral inflammations, that the pancreas is often not diffusely affected, but only a portion shows enlargement, induration or nodulation. In gall-bladder disease the head of the pancreas participates while the tail may entirely escape. If the infection were duct-borne it would be difficult to understand why the gland should not be diffusely affected; if, however, the infection be carried by the lymphatics it should be localized to the segment of the organ supplied by the lymphatics in communication with those carrying the infection.

The author feels certain that lymphatic infection of the pancreas is a fact and that this pancreatic lymphangitis is a forerunner of serious alterations in the parenchyma and stroma of the organ.

Chronic pancreatitis, when it has progressed to the stage of interlobular and interacinar fibrous deposit, is no more curable than chronic nephritis or cirrhosis of the liver. That pancreatic lymphangitis may lead to such a stage is clear, but in its incipiency it may be relieved, like lymphangitis elsewhere, by removal of the primary source of infection. As a rule it may be stated that the symptoms of pancreatitis per se in its early stages are secondary in importance to those of the disease on which it depends.

The author expresses his belief that carcinoma of the pancreas is in many instances brought into existence by previous pancreatitis. His reason for this belief is the observation that not a few cases of cancer of the pancreas present a long history of antecedent upper abdominal indigestion suggesting pancreatic inflammation prior to the development of carcinoma.

The treatment of pancreatic lymphangitis consists in the various measures which are efficacious in removing the primary source of infection. Clinical experience shows that the majority of cases of early pancreatic inflammation are closely related to disease of the biliary tract, and are most favorably influenced by measures that tend to restore the biliary passages to a state of health. The great principle of the treatment of biliary disease is drainage. Many cases of mild pancreatitis are completely and permanently relieved by simple cholecystostomy, with drainage continued for from four to eight weeks. This is the procedure which Deaver uses and endorses in all cases in which the pancreas appears to be slightly involved and the possibility of restoring the gall-bladder to a state of health appears good.

While he does not favor, as a general rule, the removal of the gall-bladder, if it can be preserved, yet in cases complicated by pancreatitis he believes that a thickened, functionless gall-bladder should be removed, as its presence invites stagnation of bile, renewal of infection, and a reappearance of upper abdominal lymphangitis. The common duct should be drained whenever the disease is so extensive as to warrant removal of the gall-bladder.

Cholecysto-duodenostomy is reserved for cases in which obstruction of the common duct by the thickened head of the pancreas is almost if not quite complete. Simple drainage of the gall-bladder or common duct often works wonders, and should be performed in view of the lower mortality as compared with a gall-bladder anastomosis.

**Noland and Watson: Spontaneous Rupture of the Malarial Spleen. Report of Three Cases.** *Ann. Surg.*, Phila., 1913, lvii, 73. By Surg., Gynec. & Obst.

This is an exceedingly rare condition. From the records of about 30,000 malarial cases admitted to the Colon Hospital, the authors collected only three cases of spontaneous rupture of the spleen. Attention is called to the apparently unquestionable history of absence of traumatism in these cases.

The first case was operated upon ten days after admission. The abdominal cavity contained about 500 cc. of dark fluid blood. The spleen was enlarged to twice its normal size, and a shallow rupture about 1½ inches in length was found on the diaphragmatic side. Bleeding was stopped by light gauze tampon. This case recovered.

In the second case 1500 cc. and in the third case about 1000 cc. of blood and clots were found. The rupture in both cases was found on the convex surface of the spleen. The second case recovered, and the third died from acute suppression.

The authors go into the symptomatology and diagnosis, and call attention to the fact that the treatment is strictly surgical. They conclude that spontaneous rupture is rare, great splenic enlargement is not essential for rupture, forcible percussion and puncture of the spleen should be avoided: the treatment is early operation. H. W. KOSTMAYER.

### MISCELLANEOUS

**Hausmann: Visceral Syphilis** (Die luetische Erkrankungen der Bauchorgane). *Samml. Zwangl. Abhandl. a. d. Geb. d. Verd. u. Stoffw.-Krankh.*, 1913, iv, 5. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

After a short historical introduction, Hausmann discusses visceral lues in general. Visceral syphilis can develop, even with severe cachexia, during the first year after infection. Any abdominal organ may become diseased, frequently two or more being affected. Diffuse infiltration causing a fibrous hyperplasia is more frequent than gummata. The venous walls become affected by the granulations (not found in congenital syphilis).

Secondary or tertiary lesions may be found in the œsophagus and cardia of the stomach, often resulting in a stricture. In the stomach proper gummata and ulcers are the more common lesions present, the latter being differentiated from peptic ulcer by its overhanging border. Diffuse fibrous hyperplasia of the stomach wall, resembling a scirrhous thickening, is also seen. Hypoacidity is typical for a luetic lesion in the stomach. Symptoms of stenosis and blood in the fæces may be absent in gummatous infiltrations of the pylorus. Pain and vomiting may be absent. The characteristic ulcer symptoms are nocturnal pain in the stomach with anacidity. Hausmann thinks syphilis of the stomach is more common than does Chiari.

Intestinal lues occurs in two types; patches of gummatous infiltration with the long axis transverse, occurring mostly in the jejunum and ileum, resulting in stenosis or perforation and fibrous hyperplasia. In 14 per cent of the cases papules appear in the rectum during the secondary stage. They have no connection with anal papules. Gummata of the rectum lead to secondary stenosis and fistula formation. Primary hyperplastic syphilis is also seen here. Stenosis due to gonorrhœa appears as a sharp-rimmed, intensely red scar, while the luetic is a callus and ulcers are usually present. Thus far syphilis of the rectum has occurred only in women.

While tertiary lesions are more often seen in the liver, secondary lesions are possible. Two types of tertiary lesions are common, the diffuse infiltration leading to the typical lobulated liver and gummata.

Diffuse pancreatitis is more frequent than gumma. In 23 per cent of congenital lues the pancreas was found to be affected. The islands of Langerhans are not indurated and the function of the gland need not be disturbed, although fat has been observed in the fæces, as well as sugar in the urine. Pain is often present and an indurated pancreas can sometimes be felt. There may be hyperplasia of the spleen in the secondary stage, and chronic interstitial splenitis or gummata in the tertiary stage. Pain may be present in the region of the enlarged spleen.

Retroperitoneal and mesenteric gumma are more frequent than is supposed, the mesenteric gumma being connected with the small intestine and therefore freely movable. They may cause stenosis when they reach the intestinal wall. Lues of the peritoneum is usually associated with syphilis of some organ. Nodules in the peritoneum are seen in luetic ulcers of the intestine; perihepatitis when liver is affected; perisplenitis when spleen is diseased. P. MEYER.

## SURGERY OF THE EXTREMITIES

### DISEASES OF THE BONES, JOINTS, ETC.

**Wieland: Rickets and Its Treatment** (Ueber Rachitis und ihre Behandlung). *Schweiz. Rundschau f. Med.*, 1913, xiii, 313. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Wieland finds the cause of the specific changes of the bones in rickets to be a defect of calcareous deposit, and questions the existence of the halisteresis claimed by Recklinghausen. Myopathica rachitica also is a specific affection and histologically represents a diminution of the caliber of the muscle fibers and a multiplication of the nuclei, associated with very distinct longitudinal striation; it therefore does not represent atrophy due to inactivity. According to Marfan, hyperplasia of the medulla is

also specific. As of chief etiological importance, Wieland names predisposition in the sense of an hereditary or early acquired general weakness of the individual, and as next in importance, devitalization from deficient aëration, the result of living in crowded quarters. Thereby he differs from Marfan, who looks upon the disease as an affection of the entire hæmatopoietic apparatus. Congenital rickets is denied by Wieland. The greatest frequency of this prevalent disease falls at the end of the first year of life. It is always most easily recognized at those points where growth happens for the time being to be most active: on the skull during the first year of life; later on the thorax, the spinal column, and the epiphyses of the long bones. Rachitis tarda he considers an exacerbation of infantile rickets which has become and remained latent. In therapeutic respects he presents nothing new; however, he points out that operations for distortions should be avoided until one is absolutely assured that recovery is complete.

ERNST SCHULTZE.

**Tennant: The Use of the Blow Torch and Large Autodermic Grafts in the Treatment of Acute and Subacute Osteomyelitis.** *Denver M. Times*, 1912, xxxii, 322.

By Surg., Gynec. & Obst.

Since bone structure will not readily close in about infected areas and cavities, it becomes necessary to substitute some media which will temporarily fill the cavity and act as the framework or scaffolding for the later structural osseous infiltration.

While the Mosetig-Moorhof bone wax medium has been found to be most satisfactory for this purpose, yet it seldom if ever remains in position in the presence of acute or subacute osteomyelitis.

The author has undertaken to overcome these unfavorable features by the adoption of the following procedure.

An alcohol or "Prestolite" blow torch delivering a needle-point flame is directed deep into the septic bone cavity, completely sterilizing everything with which it comes in contact. The infected margins of the soft tissue as well as the cavity are treated in like manner, and after the wax has been packed into the cavity, an autodermic graft is placed, and over all a rubberized open mesh dressing is laid and bandaged into place. This last procedure makes it possible for drainage and easy access to the wound for the dressings, without distorting the margins of the graft.

The wax is put up in sterile collapsible metal tubes, which are dropped into a water bath of 100° F. just before using.

**De Nancrede: A Case of Metastasis in the Femur of Normal Fœtal Thyroid Tissue.** *Phys. & Surg.*, 1913, xxxv, 19. By Surg., Gynec. & Obst.

Cases of this kind are usually diagnosed as malignant tumors, either a primary sarcoma or a secondary carcinoma. Often a histological examination of tissue removed at an operation is not made, and so there are probably many cases of non-malignant bony growths which are never correctly diagnosed, even after they are removed by operation. The Germans have come to view with suspicion all bony growths which occur in regions where goiter is common. Often a rigid examination of the thyroid will reveal a nodular condition.

The case in hand came to the hospital because of a fracture which had occurred six months previously and which had never healed. The fracture was located above the knee. The trouble began four months previous to the fracture with pain in the left heel followed by swelling. The pain and swelling passed gradually up the limb to a point slightly above the knee, where a nodular mass formed the size of a biscuit. The fracture resulted from a slight twisting of the leg as the patient fell. The injury was accompanied by severe pain in the limb.

The limb was flail-like and was amputated. A histologic examination of the tumor resulted in a diagnosis of metastasis of fœtal thyroid tissue in bone, only locally malignant.

Cases of this kind, which cannot be cured by any retentive apparatus applied to the bone, necessitate only a very low amputation, and not the high amputation which is necessary when the more malignant types of bone tumors are present.

JAMES H. SKILES.

**Schwartz: Giant Cell Sarcoma at the Lower End of the Femur; Resection of the Knee; Good Results at the End of Eighteen Years; No Recurrence; Pseudarthrosis; Good Use of the Leg While Walking** (Sarcome à myéloplaxes de l'extrémité inférieure du fémur; résection du génou; resultat au bout de 18 ans; absence de récidive; pseudarthrose; march très-facile). *Rev. d'orthop.*, 1913, iv, 71. By Journal de Chirurgie.

The above title is the history of a very interesting case in a few words. Two points of interest should be noticed in the writings of Schwartz:

(1) The fact that there has been no recurrence of the tumor in eighteen years proves to us that we can cure these giant cell sarcomas by simple resection.

(2) That the patient has good use of the limb while walking, that he is able to use the leg freely and stand upon it for hours with no difficulty (he stands by the hour at his trade), and that he has free mobility at the knee, which is actually of better service than before.

ALBERT MOUCHET.

**Bätzner: The Trypsin Treatment of Surgical Tuberculosis.** *Practitioner*, 1913, xc, 203.

By Surg., Gynec. & Obst.

Acting on the belief that the treatment of surgical tuberculosis with proteolytic ferments would aid in the resolution of the lesions, the author has carried on investigations to determine the value of such treatment clinically. His method consists in the injection subcutaneously of a sterile 60 per cent

solution of trypsin in glycerin. The dose varies from 1 to 2 cc., diluted with one to ten parts of physiological salt solution. Injections are made at intervals of 2 to 7 days, preferably into and about the site of the lesion. He states that trypsin diffuses very slowly through the tissues into which it is injected, and that the action on normal tissue is practically nil.

Injections into tuberculous tissue are followed by slight smarting pain, occasionally a rise in temperature, and local signs of inflammatory reaction. Especially in closed lesions, violent inflammatory reactions occur bearing all the characteristics of acute inflammatory phlegmon, intense smarting, and, a few hours after injection, rigor and high temperature. These symptoms disappear in from 24 to 28 hours, while the swelling may continue from 4 to 6 days. In cases of large closed abscesses after one or several injections, the pus is said to become serous and frequently blood-stained, accompanied by shrinking of the walls of the abscess, followed by cicatrization.

Microscopically the author has determined the addition to the lymphocytes and detritus of the tuberculous pus, of polynuclear leucocytes, eosinophiles and red blood cells, and a decrease of the lymphocytes. He concludes from this that the blood has gained free access to the lesion by absorption of the thickened torpid tissues surrounding it, and that "under the influence of the ferment injection, a vigorous reaction takes place in the tuberculous focus; and ensuing hyperæmia, cellular infiltrations, and proliferations lead to a transformation of the substance and the structure of the pathological tissue and to necrosis of the fungoid masses without impairing in any way the vitality of the healthy parts."

From an abundance of material he cites four specific cases of advanced tuberculosis of the ankle, several with ulceration and sinuses leading to bare bone, cured in 1 year and 9 months, 14 months, 2 years, and 1 year and 8 months respectively. The X-ray of one of these he describes as showing "extensive destruction of the calcaneus and astragalus and of epiphyses of the tibia and fibula." He describes the X-ray taken after treatment as showing "complete restitution of bone." The number of injections in these cases were 50, 17, 31, and 40. He also reports the disappearance of a tuberculous abscess the size of a child's head, after two aspirations and 11 trypsin injections. Suppurating sinuses, and especially superficial tuberculous ulcers, he believes are very amenable to treatment. Among the general effects of the treatment he notes improvement in general physical and mental condition and unusual improvement in appetite. He advises the treatment in all surgical tuberculosis, especially those with abscesses or sinuses. While not presenting the method as a finished therapeutic procedure, he believes that in view of his excellent results the method deserves further investigation.

F. J. Gaenslen.

**Butzengeiger: Experiences with Mesbé in the Treatment of Surgical Tuberculosis** (Erfahrungen mit Mesbé in der Behandlung chirurgischer Tuberkulosen). *München. med. Wchnschr.*, 1913, lx, 128. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

As a result of the publication of Heermann and Spangenberg, 7 cases of chronic fistulous bone tuberculosis were treated with 'mesbé. Mesbé was applied locally either pure or as a 50 per cent salve. In all cases more or less extensive surgical procedures had been used and had left fistulæ. Two cases healed after 10 weeks' treatment with mesbé and remain closed at the present tune, 2 months later. One case showed, after the application, a marked local reaction and rise of temperature to 39°. In most other cases severe pain and increased secretion were noted. This is regarded as the specific action of this remedy on the tuberculous processes and hence it is thought it contains specific anti-tuberculous bodies.

Hagemann.

**Chalier and Naurin: Primary Benign Tuberculous Pyarthrosis without Bone Lesions** (Sur une forme bénigne de pyarthrose tuberculeuse primitive sans lésions osseuses). *Rev. d'orthop.*, 1913, iv, 41. By Journal de Chirurgie.

Under this name, Chalier and Naurin describe the "articular cold abscess," and cite three cases in which such a true complete pyarthrosis was demonstrated, not only by clinical examinations but by arthrotomy or aspiration. The tuberculous nature of the lesions was confirmed by the laboratory findings. As to the articular lesions, the one case which was operated showed that the synovial membranes were alone involved, whilst the articular cartilages and the bony epiphysis showed not the slightest alteration. The clinical characteristics of this variety of tuberculous pyarthrosis are, first, the almost absolute integrity of the articular functions, and secondly, the minimum constitutional effect. This affection may hence be considered relatively benign. Fixation with or without accompanying injection of modifying solutions into the joint is the treatment of choice unless such acute symptoms should supervene as those which in this case led Jabaloy to perform an arthrotomy.

Albert Mouchet.

**Berry: The Classification of Arthritis.** *Surg Gynec. & Obst.*, 1912, xvi, 54.
By Surg., Gynec. & Obst.

The classification of injuries and diseases of the joints has always been more or less confusing, and the confusion has occurred mainly in the classification of the chronic diseases.

Thus Goldthwait classifies the chronic diseases of the joints into infectious, atrophic, and hypertrophic arthritis. Under the head of hypertrophic arthritis he groups such diseases as Heberden's nodes, malum coxæ senilis and spondylitis deformans.

Jones makes only two classes, rheumatoid ar-

thritis (corresponding to Goldthwait's atrophic arthritis) and osteo-arthritis (corresponding to Goldthwait's hypertrophic arthritis).

Nathan has a classification in which senile osteo-arthritis corresponds to Goldthwait's hypertrophic arthritis or Jones' osteo-arthritis, and metabolic osteo-arthritis corresponds to Goldthwait's atrophic arthritis or Jones' rheumatoid arthritis. He groups both diseases, however, under the head of trophic osteo-arthritis.

According to the author, the classification of joint diseases which seems to offer the least opportunity for confusion is a classification based upon known etiological and anatomical factors, and is as follows:

1. Traumatic: (*a*) Traumatic arthritis, (*b*) traumatic osteo-arthritis.

2. Infectious: (*a*) infectious arthritis, (*b*) infectious osteo-arthritis.

3. Trophic: (*a*) Trophic arthritis, (*b*) trophic osteo-arthritis.

In the above classification the diseases known as Heberden's nodes, malum coxæ senilis, spondylitis deformans, osteo-arthritis (Jones), etc., are classified under the head of traumatic osteo-arthritis, because their initial lesion as shown by the X-ray corresponds to that of an osteo-arthritis caused by known trauma. In like manner, the disease known as rheumatoid arthritis (Jones) is classified as a trophic osteo-arthritis, because the X-ray findings correspond to those in diseases known to be trophic in origin. The author believes that all forms of arthritis can be placed in the present classification according to their etiology and the anatomical changes.

**Axhausen: Nature of Arthritis Deformans** (Ueber des Wesen der arthritis deformans). *Allg. med. Zentralz.*, 1913, lxxxii, 47.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

According to the histological and experimental studies of the author, arthritis deformans always caused necrosis of the cartilage. He found that both necrotic bone and cartilage displayed an active reaction on the surrounding healthy tissue. The cartilaginous tissue soon commenced to undergo active proliferation and to replace the necrotic tissue which was killed by electric current in his experiments. The most characteristic change took place in the bone marrow near the epiphysis. Under such experimental conditions the necrotic cartilage frequently took on the typical pathological picture of arthritis deformans. According to Axhausen, the necrotic changes in the cartilage are typical physiological changes seen in old age. The symptom-complex is activated by it and is closely related to the amount of deformity and change it produces.

E. O. P. Schultze.

**Dardel: Gonorrhœal Rheumatism in Arthritic Subjects.** *Med. Rec.*, 1913, lxxxiii, 150.

By Surg., Gynec. & Obst.

Dardel reviews briefly the history and course of gonorrhœal rheumatism, and discusses at some length the treatment. In acute cases attended by much inflammation, he quotes Chevrier as obtaining favorable results with injections into the joint of 20 to 50 micrograms of radium salts. In chronic cases with joint deformities, Dardel advises injections of thiosinamin or fibrolysin; 2 cc. of the latter are used daily for a fortnight, together with massage and manipulation of the joint. He asserts that this treatment is capable of yielding good results.

Charles M. Jacobs.

**Pürckhauer: Injuries of the Ligamenta Cruciata of the Knee Joint** (Ueber Verletzungen der Ligamenta cruciata des Kniegelenks). *München. med. Wchnschr.*, 1913, lx, 73.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Purckhauer reports 3 significant cases, two of which he was able to observe for a long time. The mechanism of this injury has been studied chiefly in the Röntgen era and is fourfold: (1) Hyperextension; (2) hyperflexion, when at the same time there is a powerful force acting on the knee; (3) hyperextension and simultaneously high-grade outward abduction; (4) inward and outward rotation by by great violence, usually with associated severe injury to the lateral ligaments and capsule. The characteristic late symptom is the possibility to luxate both actively and passively from before backward, without any lateral movements and with slight impairment of function. In fresh cases suturing the torn ligaments is recommended. In late cases when the functional disturbance is not too great, the knee is best immobilized in order to present the possibility of subluxation.

Vorderbrügge.

**Breus: Etiology and Genesis of Otto's Protrusion of the Acetabulum** (Zur Aetiologie und Genese der Ottoschen Protrusion des Pfannenbodens). *Wien. klin Wchnschr.*, 1913, xxvi, 167.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

In this condition a local destructive inflammation of the bony floor of the acetabulum takes place, whereby only a thin layer of inflamed periosteum persists between the pelvic cavity and the joint. The head of the femur pushes on the periosteum, and after the inflammation has subsided a new bony acetabulum develops. The head of the femur, bulging into the pelvic cavity, remains in the position it assumed during the height of the disease. Of the 13 cases, 4 occurred in men, and in 6 of the 9 women it was bilateral. Gonorrhœa probably causes the arthritis, and a superimposed pregnancy is most likely a predisposing factor in females.

Hannes.

**Ryan: Muscle Degeneration and Osteoma.** *Illinois M. J.*, 1913, xxiii, 71.

By Surg., Gynec. & Obst.

This article embraces a review of the literature upon the subject of myositis ossificans traumatica, with a review of 4 cases that have come under the

observation of the author. These cases were at one time considered rare, but since the advent of the X-ray they have been found rather frequently. There are upward of 500 cases that have been reported in the literature.

Several theories are held as to the causative factor in the production of myositis ossificans traumatica. Busse and Blecker support the theory that it is caused by an inflammatory process. The theory that it is a true osteoma has a great many supporters. Nicoladoni believes that the condition is due to trophoneurotic changes. A few observers believe that the synovial fluid liberated from the joint by the injury may have some unusual action upon the injured tissues. But this view does not seem correct when we remember the large number of cases where a joint has been opened by accident or intent and no osteoma has formed. The usual theory of misplaced embryonal tissue is held by several observers.

The pathology, according to Virchow, is due to muscle degeneration. He considers the growth on the border line between an osteoma and an inflammatory process, and he believes the changes occur in and are derived from the muscle cells and not from periosteum or from bone or connective tissue. Almost all observers are now unanimous in the belief that the periosteum and connective tissue produce the bony condition and that the presence of the muscle tissue is merely accidental.

The diagnosis is made on the history of trauma, the persistence of a stony hard swelling, tenderness on pressure and limitation of motion long after the limb should have recovered its normal range of movements. The X-rays are of immense value and should be taken in at least two planes.

The treatment is conservative and radical. The conservative treatment is adopted early and consists in rest, aspiration of the fluids in excess, and hot or cold applications. When the X-rays show a bony growth and the process is at a standstill, removal of the bony growth is the best procedure. Removal of muscle surrounding or connective tissue attached to the growth is advised and if the growth is subperiosteal or attached to the periosteum, the removal of the periosteum is also recommended.

Four cases are reported in the article. These were all cases where the region of the brachialis anticus was the part affected. Two of the cases were operated upon with good results. The other two cases could not be followed, as one refused operation and the other left the hospital and failed to keep his promise to return. Both the cases operated upon showed a marked shadow with the X-ray; operation showed the growth to be in one case in the tendon of the brachialis anticus muscle, and in the other case the whole mass was beneath the periasteum and proved to be a simple osteoma, both in macroscopic and microscopic appearances.

James H. Skiles.

## FRACTURES AND DISLOCATIONS

**Grégoire: Pathogenesis and Pathological Anatomy of Recurring Dislocation of the Shoulder** (Luxation récidivante de l'épaule; anatomie pathologique et pathogénie). *Rev. d'orthop.*, 1913, iv, 15.
By Journal de Chirurgie.

The author points out that recurring luxation of the shoulder differs from the ordinary traumatic dislocation which appears in a normal articulation as the result of a violent traumatism in that it often follows an insignificant traumatism owing to the fact that it occurs in a congenitally malformed articulation. The articular malformation which predisposes to recurring dislocation consists first in a thinness and an abnormal laxity of the capsular tissues. The capsulo-periosteal separation described by Broca and Hartmann is, according to the author, merely the unhealed rupture following an extracoracoid luxation, and cannot be invoked as the recurrence. The separation of the capsule from its insertion on the glenoid border, which has been described by Quénu, is perhaps only this same lesion of Broca and Hartmann after cicatrization. The author bases his statement that the thinness and relaxation of the capsular tissues is congenital upon personal observation and the observation of many other authors. Torta's recent thesis on the voluntary subluxation of the shoulder is an agreement with the author's statement.

Another factor consists in the malformation of the head of the humerus. There is a defect in the posterior portion of the head of the humerus, as if a piece like the segment of an orange had been ablated. This defect, which has been noted by many authors in cases of recurring dislocation of the shoulder, is due neither to traumatic depression nor to local friction, but according to Grégoire is a congenital malformation.

Albert Mouchet.

**Ruth: Fracture of the Femoral Neck: Its Anatomic Treatment.** *Albany M. Ann.*, 1913, xxxiv, 1.
By Surg., Gynec. & Obst.

One third of all fractures of the aged are of the femoral neck. Reports from over 200 cases treated by the "anatomic method" prove that good results are as certainly attainable in the treatment of this as of any fracture of the femur. Fowler's and Keen's illustrations of the method are complicated and misleading.

The treatment is in reality very simple and can be applied by anyone understanding the objects sought, viz., overcoming by longitudinal and lateral traction all the displacing influences of (1) the vertical, oblique, and internal pull of the muscles crossing the fracture line, (2) the weight of the limb, and (3) eversion by the rotators.

Enough traction must be applied longitudinally (usually 15 to 30 lbs.) and laterally at the upper end of the thigh (usually 10 to 20 lbs.) to overcome all shortening and flattening of the hip. The lateral

pulley should be high enough to enable the lateral traction to overcome eversion of the foot.

The illustrations indicate the proper application of the method, which will always make the patient comfortable and which will insure union in those having sterngth enough to survive the shock of the injury and who live four weeks thereafter.

Patients may be raised to a sitting posture daily, as required for cleansing and rest, and to avoid the danger of hypostatic pulmonary congestion so important in the very aged and feeble. By flexing

Fig. 1. Illustrating effect of longitudinal and lateral traction with the resultant force acting in line with the neck of the femur. (Ruth.)

the sound leg the hips can be raised for use of the bed pan without pain, as none of these movements will disturb the fragments or interfere in the least with union.

G. W. Phillips first used this method in 1867. T. J. Maxwell improved the method but did not use it until 1871. The author makes this correction because he had supposed Maxwell was the author of the method and had given him credit for 22 years in his teaching and writings.

Fig. 2. Showing the proper position of the bed tilted with the injured side and the foot of the bed raised enough to cause the body weight to make the required counter-extension. For an adult male tolerably muscular the weight at the foot should be from 20 to 30 pounds at the first, and the lateral pull should be usually about two-thirds as much as that used on the foot. The use of this apparatus is equally applicable to the treatment of all cases of tuberculosis of the hip joint when they must be confined to the house or to bed, as it places the joint in absolute rest and avoids all muscular spasm. Proper adjustment of the spreaders at the foot and in the lateral pull will avoid all injury to the malleoli and œdema of the limb from compression of the long saphenus, while proper adjustment of the lateral pull will regulate the degree of inversion or eversion. (Ruth.)

**Patel and Viannay: Complete Subastragaloid Internal Dislocation of the Foot without Perforation of the Skin** (De la luxation sous-astragalienne complète du pied en dedans sans perforation de la peau). *Rev. d'orthop.*, 1913, iv, 1.

By Journal de Chirurgie.

Patel and Viannay report three personal observations of this traumatic lesion, together with a case of Gayet and Deber which has been published in Walther's thesis (*Thèse de Lyon*, 1911-12). Under the name of subastragaloid internal luxation of the foot they describe a displacement in which the foot pivots internally so that the plantar surface becomes median, while the tibia and fibula holding the astragalus between them form the lateral prominence. These luxations seem to depend upon a lessened resistance of the interosseous ligament. The condition has sometimes followed a very slight traumatism. The swelling may mask the clinical signs. Bimalleolar fracture should, however, cause no difficulty in the differential diagnosis and mediotarsal luxation is likewise easily eliminated. In doubtful cases radiography will settle the diagnosis. Reduction should be carried out at once, lest the prominence of the astragalus lead to perforation of the skin or lest compression of the vasculo-nervous bundle on the internal aspect of the ankle compromise

the vitality of the foot. Under general anæsthesia the reduction is usually easy. However, certain complications, such as luxation of the extensor tendon or the ensiform ligament, render reduction impossible without an open operation or astragalectomy, to which latter the authors give their preference. ALBERT MOUCHET.

## SURGERY OF THE BONES, JOINTS, ETC.

**Bartlett: A Consideration of 76 Operations in Which Lane Bone Plates Were Used.** *Boston M. & S. J.*, 1913, clxviii, 149.

By Surg., Gynec. & Obst.

Bartlett comments on the conviction as to the value of the Lane method of treatment which is gained by witnessing the operative procedure, especially as carried out by its author, but adds that its actual value can be established only by a study of the end results. In his own case this has served to dampen his early enthusiasm, so that he is doing less of this work now than at any time since his visit to the Lane clinic 2½ years ago.

In the 76 cases upon which he has operated, the mortality was 3.9 per cent. Only 38 cases could be traced for a period ranging from 2 to 29 months. Of this number 22 were simple and 16 compound fractures, 4 of the latter being suppurative at the time of operation. In 13 cases the plates had to be removed, 4 of them being simple and 9 compound fractures. Seven of the 38 cases are considered failures, and are given in detail: 1. A fracture of the femur in a 50-year-old alcoholic woman; death after 10 days from delirum tremens and infection of the wound. 2. Fracture of clavicle in a 40-year-old alcoholic male; death from post-operative pneumonia. 3. Compound fracture; both bones of the leg became severely infected and the plate loosened up, requiring removal 3 weeks later. 4. Compound fracture of femur followed by infection, which necessitated removal of plate after 3 months, after which the fracture healed. 5. Compound fracture of tibia from street-car accident; plated immediately; death in 3 days, with high fever and probable fat embolism. 6. Compound fracture of both bones of forearm; radius plated immediately, but amputation necessary one week later because of gangrene. 7. Compound fracture low in the tibia; plated unsuccessfully elsewhere; a second plate applied, but amputation was finally necessary after weeks of suppuration. Satisfactory end results were obtained in the other 31 cases. However the author takes a very conservative stand, and warns against the employment of the procedure except in carefully selected cases. D. B. PHEMISTER.

**Gazzotti: Experimental Contribution to the Study of Cuneiform Osteoplastic Grafts** (Contributo sperimentale allo studio dell' infibulazione). *Policlin. Sez. chir.*, 1912, xix, 536.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Under aseptic precautions Gazzotti resected the distal epiphysis of the femur and the proximal epiphysis of the tibia of rabbits which had just been killed and transferred them to other rabbits by grafting the pieces, as a central wedge, in the resected and excavated medullary spaces. He then made a histological examination of these 33 test animals, 2 to 15 days after the transplantation. The results at which he arrived do not differ materially from those obtained by other authors (Axhausen, Barth, and Frangenheim). On the receptor bone he observed regressive processes (necrosis and absorption), taking place in a certain sequence. He also observed neoformation of osteoid and osseous tissue and necrosis and absorption of the excess of newly formed elements. On the implanted material, he noted regressive processes to the extent of complete disappearance of the implanted bone elements. Proliferation on the part of the osteoblastic layers was intermittent and slight, resulting in very limited production of osteoid and osseous tissue. The invariable outcome of the experiments was necrosis and complete absorption of all the newly formed material. Unlike Axhausen and Barth, Gazzotti was altogether unable to find living bone substance in the vicinity of the periosteum. This disintegration of the solid elements of the implanted bone is traceable to the interruption of circulation and of the nerve connections. The less differentiated elements of the periosteum and the medulla, on the other hand, retained their vitality and power of proliferation as they were nourished by the fluids circulating in their vicinity. Gazzotti refers to the favorable effect (noted by Axhausen) of a longitudinal incision made into the periosteum of the implanted bone for the purpose of facilitating the access of the fluids. Reasoning by analogy from this fact, we should expect to find that disintegration of the solid elements begins in the deeper layers. This, however, is not the case, for necrosis begins at the exterior surface and the interior surface (facing the medulla) of the diaphysis and from there spreads to the deeper layers. Disturbances in circulation can, therefore, not be held accountable for the disintegration of the newly formed osseous elements of the implanted material. As the microphotographic slide demonstrates, very vigorous unions were formed with the vascular system of the receptor bone, at least during the early stages, so that nutrition must have been more than sufficient; yet regressive processes had even then begun to develop in the newly formed bone tissue. At a later stage, it is true, the medulla had been transformed into fully developed connective tissue, poor in blood-vessels, and the entire newly formed bone tissue had undergone necrosis. Sclerosis of the parent tissue might therefore have influenced the final changes, but it could not have affected the regressive changes in the newly formed bone elements, as these had already set in at an earlier stage. So Gazzotti concludes that the absence of functional stimulation is to be held chiefly accountable for the necrosis of these newly formed bone elements.

Certain favorable influences, however, are indeed exerted by the implanted material on the osteoblastic elements of the receiving bone. It stimulates them in the manner of foreign material, introduces osteoblastic substance capable of proliferation, as well as lime salts and other products which result from the breaking down of the implanted bone. These favorable influences must, however, be checked off against unfavorable influences, of which Gazzotti names the following: (1) Regressive processes take place in the receptor bone (necrosis and absorption from a constant focus in the diaphysis) which counterbalance the favorable osteoblastic stimulation produced by the implanted wedge. (2) Bone formation on the part of the specific elements of the implanted bone is intermittent and ultimately these elements are completely absorbed.

On the basis of his histological results Gazzotti thus arrives at certain conclusions respecting the suitability of bone grafts as a method of treating pseudarthroses and fractures with retarded formation of callus. He believes that in pseudarthroses and in cases of retarded formation of callus, the nutritive conditions of the bones are more unfavorable than those which obtain in perfectly healthy test animals. The regressive processes in the receptor bone will therefore of necessity be much more marked than in these experiments. Hence we have no certain assurance that an increase in osteoblastic reaction on the part of the receiving bone will be produced by the wedge. At the same time, moreover, regressive processes are taking place and the bloody intervention itself very probably has an unfavorable effect on union of the fractures. Because of these considerations and on account of the complete absorption of the implanted material and of all the tissue elements newly formed by it, the value of the method of implantation as a treatment of pseudarthroses and fractures with retarded formation of callus must be put down as considerably lower than has been done hitherto. WITTEK.

**Taylor: Restoring Mobility after Bony Ankylosis of the Joints.** *Penn. M. J.*, 1913, xvi, 294. By Surg., Gynec. & Obst.

The author presents a paper on the use of wax mixtures after arthrolysis for the prevention of the reformation of ankylosis. He briefly reviews the various methods previously employed for restoring mobility after ankylosis, and divides them into six groups, as follows: 1. Brisement forcé. 2. Interposition of foreign non-absorbable substances. 3. Muscle and fascial flap with nutritive pedicle. 4. Heterogeneous fascia or membrane (from other animals). 5. Autogenous or homogeneous fascia or membrane without nutritive pedicle (fascia lata, Thorn's method). 6. Absorbable animal substances — waxes, amyloids, colloids, gelatins and fats (Taylor's method).

Groups 1 and 2 are obsolete. Groups 3 and 4 present at times one or more of these objections, following the operation: length of operation, pain, fever, suppuration, sloughing, sinus formation and reformation of ankylosis.

Prognosis as to mobility after operation depends on joint involved, degree and nature of involvment, causative disease or condition, and changes in adjacent parts.

Atrophy, osteoporosis, deformed articular ends, thickening of capsules, shortening of ligaments, tendons, muscles, etc., influence results. Acute cases or active chronic cases are not suitable for stereo-arthrolysis.

In June, 1911, the author began laboratory and animal experimentation to determine a liquid, absorbable animal substance that could be sterilized and injected by syringe between the denuded ends of bones entering into the proposed new-made articulation, and that would solidify immediately at body temperature in such a manner as to prevent contact for some six or eight weeks before absorption. The temperature on injection must be below scalding point, and the congealed resultant was not to be absorbed before the denuded bone ends healed.

Fatty, waxy and gelatinous substances were experimented with in combination and in various proportions to determine melting and congealing points, and the rapidity of absorption was tested by injections subcutaneously in rabbits. Yellow wax and lanolin, or other animal fat mixtures melting at 120° to 135°, were chiefly used in the 9 cases reported. These were four knees, four hips and one elbow operated on for the relief of ankylosis, and in none of them did re-ankylosis occur.

The best results were 60° of motion in flexion in a knee, 75° in a hip, and full range of motion at the elbow.

The author advocates a flap of skin to cover the incision into the capsule of the joint, not using more of the wax mixture than is necessary to cover the denuded bone ends, using a wax mixture diluted as much as possible, *i.e.* as much fat as possible, to favor rapid and complete absorption; and thorough shaping of the articular ends by chisels and gouges to approach nature in appearance at the time of the operation, and not leaving too much to Wolff's Law, as yielding the best results.

In defense of his method the writer claims the prevention of the reformation of bony ankylosis, the absence of pain and fever, and rapid ability to move the joint more or less voluntarily. The wax acts not only as an anæsthetic cushion between the denuded bone ends, but as a hæmostatic plug to oozing bone vessels.

**Galloway: Observations of Tendons Transplantation Operations.** *Surg., Gynec. & Obst.*, 1913, xvi, 84. By Surg., Gynec. & Obst.

Galloway describes at length seven operations for the transplantation of tendons for varying orthopedic conditions. He lays down six rules for success: First, perfect asepsis; second, attachment of the transplanted tendon to the bone or periosteum; third, tendon must be stretched moder-

ately tight before being secured; fourth, it must be fastened with suture material that will maintain its hold for several weeks; fifth, a covering of subcutaneous tissue should be brought over it before the skin is sutured; sixth, ample time (about six to eight weeks) should elapse before the transplanted tendon is allowed to functionate.

The first group he describes is for the transplantation of the extensor proprius pollicis to the neck of the first metatarsal. This is to transfer the action of this muscle from the movable toe to the relatively fixed metatarsal, to make it a powerful dorsal flexor as well as an inverting force to the foot. Although he does not state in what class of cases he uses this operation, it is evidently for those cases of infantile paralysis in which there is an inversion and flat foot.

Group "B" consists of transplantations of the peronei to the inner side of os calcis, which he suggests as a helper to Group "A" in cases of paralytic valgus. In some cases he does an arthrodesis of the astragalo-scaphoid articulation.

Group "C"— transplantation of the outer half of the tendo achillis to the inner aspect of the heel. In this operation, where the transplantation of the peronei does not seem best, he splits the lower two or three inches of the tendo achillis, detaches the outer half with a thin layer of interlining bone, draws this through a tunnel created anterior to the inner half of the tendon, and attaches it to the inner side of the heel. He states the cases demanding this operation are chiefly those in which the tendo achillis is slightly shortened so that the foot cannot be dorsally flexed to the normal extent. He holds that in these cases this tendon produces a valgus, and it is usually necessary to lengthen the tendon by a tenotomy by Beyer's method, the transplantation being done about three weeks later.

Group "D"— transplantation of the tibialis anterior to the outer side of the tarsus. This operation he does in cases of paralytic varus. He obtains the attachment by drilling the fifth metatarsal and drawing the tendon through it, detaching the tendon as far forward as its insertion extends and dissecting it free to this point, as it is usually short at best.

Group "E" is for the transplantation of the biceps or semimembranosus to the patella. He does this operation when the hamstring muscles are intact but the extensor quadriceps are paralyzed, to give support to the knee and avoid using an apparatus to prevent this joint giving way. If possible he chooses the biceps for this operation, but if not possible he uses any of the flexor group.

In Group "F" the author treats of the transplantation of the pronator radii teres to convert it into a supinator. He states that he has performed this operation a number of times and found that it has lessened the resistance to supination, but he has never been able to satisfy himself that the result has ever become an active supinator. He thinks the improved condition of the arm results quite as much from the muscle being completely shorn of its power to act as a pronator.

Group "G" is for the conversion of the flexor carpi radialis and flexor carpi ulnaris into extensors of the wrist. The author states that this operation is nearly always performed in connection with the transplantation of the pronator radii teres, as a secondary operation done two or three weeks afterwards. The insertions of the flexors are exposed through short incisions directly over them on the front of the arm, tendons are detached with a stout bone knife and cleared for a couple of inches above the wrist. After exposing the lower part of the extensor carpi ulnaris through an incision behind the lower part of the ulna, the skin is tunneled and the end of the flexor drawn through and stitched as low as possible to the tendons of the extensor. The flexor carpi radialis is carried to the back of the wrist and attached to the extensor carpi radialis longior. He states that although the transplanted flexor may not be reasonably expected to act as extensors very actively, the advantage of depriving them completely of their power to flex the wrist is a distinct advantage; and he states that in his own cases he has seen the flexors exert a positive extending action. P. B. Magnuson.

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## ORTHOPEDIC SURGERY

### DISEASES AND DEFORMITIES OF THE SPINE

**McGlannon: Ankylosis of the Spine.** *Old Dominion J. M. & S.*, 1913, xvi, 1. By Surg., Gynec. & Obst.

The author states that inflammatory projections from pre-existing bone (spondylitis deformans), ossification of the soft tissues (spondylose rhizomelique), or regenerative formation repairing bone destruction, lead to ankylosis of the spine. In describing the pathologic process of each form, he emphasizes the fact that it is important to distinguish one from the other, since each requires a method of treatment essentially different. C. M. Jacobs.

**Doerr: Static Scoliosis** (Beitrag zur statischen Skoliosenfrage). *Ztschr. f. orthop. Chir.*, 1913, xxxi, 1. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The accounts of the frequency of occurrence of static scoliosis vary greatly. Some authors are of the opinion that functional change in the development of the individual organism, that is from the standpoint of ontogeny, is an absurdity. Because of this diversity of opinion Doerr reviews the cases of scoliosis of Langeschen's clinic in München. He made a careful investigation as to the number of cases of static scoliosis.

Static scoliosis is due to a difference in the length

of the legs, and in order to confirm the diagnosis measurement of the length of the lower extremities is absolutely necessary. To do this the author used one of Engerhard's apparatuses, slightly modified by himself. All measurements were repeated three times, on different days, so that it was impossible to make mistakes in measurements. An X-ray plate was also taken from every patient. This included both the pelvis and the upper part of the thigh in order to confirm with the plate a coxa vara or coxa valga. The X-ray plates were taken with the limb rotated inward for 20 to 30 degrees. The investigations were made on 220 cases of scoliosis. Out of these 220 cases, the author observed 14 cases with static form of scoliosis. This gives us an equivalent of about 7 per cent. Schykthelz also found that the frequency of static scoliosis was approximately 5 per cent when calculated from all the cases of scoliosis in the literature. These investigations showed further that the frequency of static scoliosis is without question fairly constant, and that it is much more common than many writers seem to think. An examination of the entire static region, that is the lower extremity including the pelvis, is absolutely necessary. BIBERGEIL.

**Auer: Spastic Paraplegia, with Cutaneous Reflex of Defense Occurring in Pott's Disease.** *J. Am. M. Assn.*, 1913, lx, 269. By Surg., Gynec. & Obst.

In 1899 Babinski described a form of spastic paraplegia due to an organic lesion but without degeneration of the pyramidal tract, the chief characteristics of which were contraction of the limb in flexion and marked exaggeration of the cutaneous reflexes, the tendon reflexes being usually not exaggerated and often diminished. In the two cases of spastic paraplegia reported, the one occurring in an early, the other in a late Pott's disease, it was observed that cutaneous stimulation of the affected member by pin-prick caused a rapid withdrawal of the limb in flexion. This phenomenon is not only found among the earliest signs, but may also be present with complete loss of sensation to touch, pain, and temperature, abolished reflexes, and paralysis of the affected side. That the cutaneous reflex of defence is a result of a compression is proven by its disappearance in one case after palliative removal of the pressure in; the other, after operation. Its occurrence has been reported in sarcomatous meningitis, multiple sclerosis, Friedrich's ataxia, and Pott's disease. The reported cases show that spastic paraplegia with the cutaneous reflex of defense is often due to a gradually progressing compression myelitis, and is of importance in the differentiation of the spastic paraplegias.

**Ebers: Case of Operated Spinal Cord Tumor** (Fall von operierten Rückenmarkstumor). *Deutsche med. Wchnschr.*, 1913, xxxix, 70.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

A woman, 23 years old, previously healthy, was suddenly taken sick, following a cold, with fever, pain in the back and paræsthesias in the right leg. Two months later she presented severe, purely unilateral disturbance of a central nature, with nystagmus, pallor of the temporal halves of the papillæ and absence of the abdominal skin reflexes. Multiple sclerosis was thought of. In a few weeks the picture changed to that of a complete transverse lesion, so that the presence of a constricting process in the spinal canal was held very probable. Lumbar puncture showed a pressure of 110; the fluid was slightly yellow in color, contained much albumin and few leucocytes. In the operation performed by Garré the incision was made over the second and third dorsal vertebræ, as the upper border of the sensory disturbance at the fourth rib showed that the third to the fifth dorsal segments were involved, and under the second vertebra was found a flat, reddish formation under the dura. After scraping the dura and opening the sac a succulent deep blue mass protruded from the posterior aspect of the spinal canal. The soft tumor reaching to the first vertebra was spooned out and its center was found to have eroded the cord. Histologic examination (Rilbert) revealed a large celled sarcoma springing from the membranes. Healing by first intention occurred. Temporary improvement was followed by painful muscular spasms, high grade reflex excitability, vertigo, cystitis, decubitus and death one month after the operation. Autopsy was not allowed, so that the possibility of the coincidence of a tumor and multiple sclerosis could not be verified. STREISSLER.

**Park: Fracture of Atlas; Spontaneous Extrusion of Fragment Through the Mouth; Recovery.** *Buffalo M. J.*, 1913, lxviii, 312.
By Surg., Gynec. & Obst.

The late James P. White of Buffalo, one of the best known American obstetricians of the last century, during the middle years of his life was thrown from a stage coach so violently as to seriously injure the upper part of the neck. No account is extant of the features of his case at that time, but Park reproduces a certificate, published in the *Philadelphia Medical News* under date of November 27, 1886, signed by Joseph Pancoast and duly attested, in which he states that he examined a fragment of bone known to have been spontaneously extruded from the pharynx of Dr. White, and describes it as the frontal segment of the atlas with the facette which received the odontoid process, the fragment measuring about an inch in its greatest diameter. White was well known to have removed this specimen from his mouth, and submitted it to Professor Patterson to show to Professors Pancoast and McClellan. It is Pancoast's opinion that the transverse ligament had so retained its hold on the extremities of the remaining portion of the atlas as to protect the spinal cord from injury. By personal acquaintance and in other ways Pancoast has satisfied himself of the authenticity of the report. White lived for many years after the injury, which he received in 1837, while his death occurred in 1881. He seemed

in no way to have had his usefulness or health impaired. Assuming the correctness of the statements, for which Park vouches, the case is one of the most unique on record.

**Haskovec: Symptoms and Diagnosis of Lesions of Cauda Equina and Conus Medullaris** (Zur Symptomatologie und Diagnose der Störungen der Cauda equina und des Conus medullaris). *Wien. med. Wchnschr.*, 1913, lxiii, 20.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author reports an interesting case with a lesion of the cauda equina. There was a complete anæsthesia of penis and scrotum, a diminished sensibility of the posterior surface of the legs and feet, and a derangement of function of the vesico-rectal region. It is evident that a lesion of this sort is due to an involvement of the sacral plexus on both sides, but especially of the third and fourth sacral roots. The symptoms in the regions specified point to the fact that the lesion is confined to the cauda equina. He considers this condition to be a chronic luetic process, and bases his diagnosis upon the history, which is not always reliable; upon the fact that the pains appeared chiefly at night; and upon the absence of any evident lesion under the X-ray, even though the patient had been sick for 22 years. Cases showing the final result under specific treatment which would confirm the diagnosis are lacking, and operative measures were not resorted to in this case.

GULEKE.

**Goldthwait: An Anatomic Explanation of Many of the Cases of Weak or Painful Backs, as Well as of Many of the Leg Paralyses.** *Boston M. & S. J.*, 1913, clxviii, 128.

By Surg., Gynec. & Obst.

Goldthwait calls attention to articles regarding the sacro-iliac joints, lumbo-sacral joints, hypertrophic arthritis of the spine, and the rheumatoid diseases. He believes that some of the peculiarities which have been described in these articles are much more common than originally supposed, and that the combination of some of these conditions explains symptoms which formerly had not been understood. An excellent collection of 18 illustrations is displayed.

He urges that the knowledge of the anatomic formation of the parts should be thoroughly understood, and explains that the flat surfaces of the articulations of the pelvic joint, with their vertical oblique axes, show that there can be but little support from the bones themselves, and that their stability must depend upon the soft structures, the muscles and the ligaments.

Patients can usually be relieved by supports, such as belts, straps, braces and exercises, in case the bones are not misplaced. When the bones are misplaced, relief is found, after the bones have been replaced, by similar supports.

In another class of cases, study of the proper relationship of the parts as affected by good and bad poise is taken up. The suggestion is made that a better understanding of the pelvic joints, together with the appreciation that their stability is almost wholly dependent upon the tone of the muscles, has made it possible many times to correct postures of strain and to restore muscle balance so that normal instead of harmful function could result.

Considering the lumbo-sacral articulation, he believes that the transverse processes upon the last lumbar vertebra are broader than normal, and that occasionally they are articulated with the top of the sacrum. These processes may also articulate with or press against the top of the sacrum or the wing of the ilium, with resulting weakness of the sacro-iliac joint. A process may simply be somewhat larger in all its dimensions and be of little importance except as the body is bent to the side, impinging against the top of the sacrum, serving as a fulcrum for straining the lumbo-sacral joint. It may be still larger, but evenly and bilaterally enlarged, so that not only does the process impinge against the top of the sacrum in side bending, but in drooping the body the increased lordosis results in the crowding of the processes against the top of the sacrum. In such postures, since the transverse and articular processes are behind the body of the vertebræ, the weight of the individual must be taken off the body of the vertebræ and thrown upon the transverse processes and the tip of the articular processes.

He shows that the lumbo-sacral transverse articulation may exist upon both sides or upon only one; but if it exists upon both sides the two sides are rarely the same, one side usually being larger than the other.

Regarding the articular processes, he finds if the body is drooped so that there is an increase of the lumbar curve, the weight is received in part upon the tip of the articular processes, with the effect that if long continued a new articular facet at the top of the articular process of the lower bone is formed, while at the base of this process, in the curve where the articular process joins the lamina, a new articular surface forms as the result of the articular process of the vertebræ above being crowded downward onto this point.

Among the symptoms, he calls attention to pain, numbness, or paralysis in the leg. The referred symptoms may not be obvious. Complete paraplegia, involving not only the legs but the bladder and bowel, may occur as the result of strain or displacement of the last vertebra upon the sacrum or as the result of the dislocation backward of the intervertebral disc.

Less extreme conditions of paralysis or disturbance of sensation in the leg find their explanation in the anatomic formation. With the increased width of the transverse processes or with the crowding of the articular processes together, the space in which the nerve root leaves the spine or the space in which the lumbo-sacral cord lies as it passes under

the transverse process and over the sacrum to join the sacral plexus must be narrowed. This at times is enough to simply irritate the nerve, causing pain referred to the leg, at the distribution of the nerve, while at other times the constriction is enough to cause paralysis.

Regarding treatment, he states that if the sacro-iliac joint is involved as part of the lumbo-sacral malformation, it is obvious that treatment directed to the sacro-iliac joint will not bring relief. In such a case not only must the sacro-iliac joint be supported, but at the same time the body must be so poised that there is the least possible irritation at the lumbo-sacral joint, as well as the least possible pressure of the transverse process against the sacrum and ilium. To relieve this pressure of the transverse process the body should be held fully erect or the back should be flattened. Simple recumbency upon the back, however, sometimes increases the pain. H. B. Thomas.

### MALFORMATIONS AND DEFORMITIES

**Sever: Orthopedic Principles for Use in General Practice.** *Boston M. & S. J.*, 1913, clxviii, 1.
By Surg., Gynec. & Obst.

The author takes up those orthopedic conditions which the general practitioner sees most frequently, such as clubfoot, wry neck, acute synovitis, infantile paralysis, weak feet, etc., and discusses the simpler methods of treatment which are available and useful. He lays emphasis upon the fact that many conditions need not go on to severe deformity needing operation and braces if properly and persistently treated early, when they are under the observation of the family physician.

This is especially true of clubfoot, infantile paralysis and acute joint affections which later become chronic and result in distortions of the limb. Many of the procedures are carefully described in detail. It is an article that should be read with interest by the general practitioner. John L. Porter.

**Forbes: Clawfoot and How to Relieve It.** *Surg., Gynec. & Obst.*, 1913, xvi, 81.
By Surg., Gynec. & Obst.

Forbes describes clawfoot as characterized by foreshortening of the foot with contraction of the plantar fascia causing cavus, by tonic contraction or permanent shortening of the extensor muscles and tendons, causing hyperextension of the toes and a depression of the metatarsal heads.

It is never, in his experience, congenital, but has an insidious onset. His procedure for correcting this condition is as follows: Transplant the common extensor tendons into the heads of the metatarsal bones, after having detached them from their insertion into the phalanges. He believes that the common extensors, while maintaining the phalanges in position of hyperextension, are acting as a power for positive evil. Transplanting these gives support to the depressed heads of the metatarsal bones. He raises the heads of the metatarsal bones by pressure from beneath, drills small holes laterally through the bone and inserts a silk ligature through this hole and the tendons, holding the tendons close to the heads of the bone. If this cannot be done, he passes the silk clear around the heads of the bones and ties it firmly. The author makes a horseshoe incision on the dorsal surface of the foot to get at these tendons, and follows this operation with a fasciation of the plantar fascia, stretching the foot over an orthopedic block and afterwards putting it up in plaster. P. B. Magnuson.

## SURGERY OF THE NERVOUS SYSTEM

**Weiss: Symptoms Simulating Klumpke's Paralysis Following an Accident** (Eine den Symptomen der Klumkeschen Lähmung ähnliche Unfallfolge). *Aerztl. Sachverst. Zeit.*, 1913, xix, 31.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

A miner who had been injured two years ago showed symptoms simulating those of Klumpke's paralysis. The symptoms appeared on the side that was least injured by the accident. There was a disturbance of the sympathetic, causing a ptosis of the upper lid, miosis, and the skin about the ear was red and somewhat glossy. The secretion of sweat stopped on the affected side and the face became asymmetrical. There was also a slight lesion of the sensory nerves supplying the arm and of the branches originating from the eighth cervical and first thoracic nerves. The presence of the sympathetic lesions, according to the author, are due to the close proximity of the inferior cervical ganglion. Grashey.

**Beer: The Relief of Intractable and Persistent Pain Due to Metastases Pressing on Nerve Plexuses by Section of the Opposite Anterolateral Column of the Spinal Cord Above the Entrance of the Involved Nerves.** *J. Am. M. Ass.*, 1913, lx, 267. By Surg., Gynec. & Obst.

In the case here reported the patient was suffering from uncontrollable pains due to a metastatic carcinoma pressing on the nerve plexuses in the pelvis, following a carcinoma of the uterus that had been operated some two years earlier. The operation consisted of a laminectomy of the ninth and tenth dorsal vertebræ, and then a section of the opposite (to the pain) anterolateral ascending sensory tract. This section was made just in front of the crossed pyramidal tract, *i.e.* approximately 2.5 mm. anterior to the exit of the posterior nerve root, and approximately to the same depth and the same distance forward. Relief followed the operation at once. As a result of the section, there was pain

anæsthesia from the first lumbar distribution down through all the sacral roots, and pain never recurred in this distribution, though some time later the patient developed pain in a higher segment, as the metastasis grew to the level of the umbilicus. After the operation there was a transient motor paralysis, which disappeared within a few days, as the patient was able to walk after ten days with only slight weakness of the leg on the side of the operation.

The author concludes:

1. Surgically considered, the operation of cutting the anterolateral column without doing serious damage to the rest of the spinal cord is perfectly feasible and not difficult.

2. Therapeutically considered, the almost complete freedom from pain produced by this surgical intervention met the indications presented in the case here reported, and in many other sufferers a similar intervention, I feel sure, will give similar relief.

3. Physiologically considered, section (complete?) of the anterolateral column produces (a) loss of pain sense on the opposite side of the body; (b) a disturbance in thermal sense, which suggests that the fibers for heat and cold are dissociated in the cord; (c) slight disturbance of deep pressure sense and slightest disturbance in touch sense, both being impaired without producing any disturbance of sense of position.

**Frazier: The Relief of Gastric Crises in Tabes Dorsalis by Rhizotomy.** *Am. J. M. Sc.*, 1913, cxlv, 116. By Surg., Gynec. & Obst.

The first rhizotomy for the relief of gastric crises was performed by Förster in 1908. He cut the sixth to tenth dorsal roots within the dura. Patient was completely relieved until the time of his death nine months later.

Frazier's case was a man forty years of age who had had severe crises for three years. The laminæ of the fifth, sixth and seventh thoracic vertebræ were removed and the seventh, eighth, ninth and (left side) tenth were cut. There had been no recurrence of the pain and vomiting at the time of writing, seven months later.

Frazier urges that the operation be completed at one sitting and that the nerve roots be severed within the dura. He was able to gather records of 30 cases of rhizotomy for gastric crises. Of these, there were 9 complete recoveries, 16 were improved, and 5 deaths. JAMES F. CHURCHILL.

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## DISEASES AND SURGERY OF THE SKIN AND APPENDAGES

**Bruck and Glück: The Effect of Intravenous Infusions with Aurum-Kalium Cyanatum (Merck) in External Tuberculosis and Syphilis** *München. med. Wchnschr.*, 1913, lx, 57. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Starting from an observation of Koch, the authors have in a number of cases of extensive lupus injected solutions of aurum-kalium cyanatum in amounts of 0.02 to 0.05 gr., a dose every second or third day. More than 0.05 gr. should not be given. As a rule, twelve such injections were made, with the result that everywhere a considerable improvement of the foci could be observed. Where gold was injected in combination with tuberculin at the height of the reaction, the effect was still more favorable. Also in syphilis, especially in the tertiary cases, very favorable results were obtained, which could even be favorably compared with the action of salvarsan. LINSER.

**Saalfeld: Radium and Mesothorium Treatment of Skin Disease** (Ueber Radium und Mesothorium Behandlung bei Hautkrankheiten). *Berl. klin. Wchnschr.*, 1913, l, 166. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

On the basis of his experiences (presentation of several cases); Saalfeld recommends radium and mesothorium in the treatment of slowly growing, slightly adherent cancroids. In inoperable cutaneous carcinomata the treatment is worthy of a trial. Radium and mesothorium are contraindicated in rapidly growing and very malignant cutaneous carcinomata. A further indication for the application of radium and mesothorium is found in keloid, lichen ruber planus and verrucosus and in isolated obstinate plaques of psoriasis. Angioma are to be treated by this method only when other methods ($CO_2$ snow) fail. The author warns against the indiscriminate use of these remedies for cosmetic purposes, because the idiosyncrasy toward radium and mesothorium, just as toward the X-rays, can produce injuries worse than the primary affection. To intensify the action Saalfeld allows $CO_2$ snow to act in the spot for 5 to 10 seconds before the treatment and recommends this method as an after trial. THELMANN.

**Neudorfer: The Application of Free Fascia Transplantation** (Zur Verwendbarkeit der freien Fascientransplantation). *Zentralbl. f. Chir.*, 1913, xl, 44. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author made use of autoplastic fascia transplantation in cases of spina bifida occulta and meningocele occipitalis inferior. One of the two children was 4 months old. Both left the institution cured. The simplicity of the technique and the excellent result attained make the author believe that these cases can very well be treated in this way. REHN.

# MISCELLANEOUS

## CLINICAL ENTITIES — TUMORS, ULCERS, ABSCESSES, ETC.

**Bashford: The Carcinoma Problem** (Das Krebsproblem). *Deutsche med. Wchnschr.*, xxxix, 1913, 4.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb

The former teaching that sarcoma is a disease of youth is untenable. Although sarcoma is relatively more frequent during youth while carcinoma is more frequent during old age, both increase with age. The relationship of mortality to age varies for different organs, but is similar for the same organ in both sexes; for example, the age curve for carcinoma of the breast in both sexes is about the same; the total deaths from carcinoma of the uterus are much higher than for carcinoma of the breast. It follows from the statistics that the influence of senescence is more important for the production than for the growth of carcinoma. To speak of a general increase of carcinoma is wrong, since certain parts of the body — for instance, skin, liver, genital organs, and others — show no increase or only a slight one. In carcinoma of the breast, and especially that of the intestinal tract, an increase is certain. The frequency of cases of carcinoma in different countries depends upon the development of mortality statistics. The supposition that carcinoma is relatively infrequent in some countries is overthrown by the facts of the English statistics. The simultaneous occurrence of certain forms of carcinoma of exotic tribes with chronic irritation is important; for example, the frequency of carcinoma of the mouth in the women of India who chew betel nut. There are similar examples from the animal domain. In India there occurs in cattle a pavement epithelium carcinoma at the root of the right horn — never on the left. They are harnessed by the right horn.

Statistics and animal experiments speak against an infectious etiology and theory of contagion. Animal experiments show also that tumors do not generally grow upon a soil suitable for the growth of carcinoma — for example, aging organism — but that the origin of the spontaneous carcinoma and its growth is an individual question for each case. The value of a chronic irritation for the origin of a tumor can be traced to a certain degree in experimental animals in which, possibly through parasites (nematodes in carcinoma of the breast observed in rats), a chronic irritation is produced, although it may play only an indirect rôle. Transplantation tumors in mammalia grow only then when they are taken from animals of the same species. An artificial immunization against tumors of the same sort by vaccination with tumors or normal tissue of another individual of the same species is possible. All attempts at immunization against spontaneous tumors have been futile. They progress and show metastases.

In the constancy of most tumor varieties it is especially the variability of the tumor cells in artificial transplantation which gives us the interesting insight into the relationship between chronic irritation and tumor growth. It was shown experimentally through double vaccination that the different mode of growth of the transplanted tumors, whether progressive or not, depended upon the changing ability of the tumor cells to overcome obstacles to its growth in the host and on the other hand on the sensibility of the tumor cells to this obstacle. The histologic examinations of the site of vaccination in normal and immunized animals shows, as an explanation of immunity, the inability of the tumor cells to produce the characteristic effect on the connective tissue and vessel cells of the immunized animal. It follows that the tumor cells have inherent characteristics which are important ones, and that the tumor cells themselves must be attacked. STAMMLER.

**Theilhaber: The Prophylaxis of Carcinoma** (Die Prophylaxe der Carcinome). *Wien. klin Wchnschr.*, 1913, xxvi, 10.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author considers marked atrophy of the subepithelial connective tissue with diminution and stenosis of the blood-vessels as prerequisites for the development of carcinoma. Trauma, inflammations, and scars cause this pathological condition of the connective tissue. The best way to avoid tumor growth in such cases is by massage, cupping, hot air, and diathermy. This is especially applicable in recently operated carcinoma as a preventative for a reappearance of carcinoma in the scar. Many growths occurring after operation are new cancers which arise from the scar because of the fruitful condition of the site for such growth. Any epithelium which might chance to land in healthy connective tissue would be absorbed at once, while in atrophic tissue with stenosed vessels the epithelial cells would have an opportunity to proliferate and develop into a carcinoma. Hyperæmia produced by any of the above mentioned methods is not harmful, but on the contrary makes small cancer herds harmless. A lengthy work on the subject is to appear soon. FRANKL.

**Gould: The Treatment of Inoperable Cancer.** *Lancet*, Lond., 1913, clxxxiv, 215.
By Surg., Gynec. & Obst

In the general treatment of cases of inoperable cancer the author urges the importance of mental and physical rest and thinks that the hospital treatment is of great value to them. He says the patient should be informed of the exact condition and thinks the knowledge of the real state of affairs has very rarely seemed to do harm, and in the late stage of the disease, when curative measures are not to be thought of and palliation is our function, it has

seemed to do great good. He attaches great importance to physical rest. In cancer of the mouth, a mouth wash of sanitas and water in the proportion of 1 to 2 dr. in 5 oz. gives good results. All loose teeth should be extracted and the removal of sloughs and sequestra is often followed by considerable relief. In uterine cancer the frequent careful use of non-irritating antiseptic douches is recommended. For cancer of the rectum where colotomy has been done, the washing through of the bowel from artificial to natural anus should be regularly carried out whenever it is possible. External cancer may be kept in a cleanly condition by the use of antiseptic lotions, ointments, and dressings; in other cases the use of X-rays will be found very beneficial in "cleaning-up" extensive and foul cancerous ulcers. Diet should be simple, easily digestible, and varied. Alcoholic stimulants of all kinds are as a rule to be avoided, for anything approaching a free use of alcohol adds greatly to the activity of the disease. Opium and its derivatives should be used as sparingly as possible. Aspirin is given to many of the patients, phenacetin to others. It is most important for the comfort of these patients that the bowels should act regularly every day, or at most every other day.

To sum up, then, the general treatment of late cancer should consist in the avoidance of all fatigue, strain, and worry; the observance of strict cleanliness; care and moderation of diet; the proper regulation of the bowels; abstinence from stimulants; and the minimal use of opium and its derivatives consistent with the reasonable comfort of the patient.

*Palliative operative measures.* In the author's experience, gastrostomy is a most valuable procedure in cases of malignant stenosis of the gullet. The patient may recover some of his lost power of swallowing; life is prolonged for months, sometimes for years; and the patients are spared the pains of death from starvation. He employs a rubber catheter, No. 18 English scale. He is in favor of colostomy for irremovable cancer of the colon or rectum when there is marked obstruction, severe pain connected with the passage of motion over the ulcerated surface, or free hæmorrhage from the growth. It should be employed only when there is definite indication for it.

Cystostomy for cancer of the bladder or prostate is sometimes of value. It is especially indicated where the growth bleeds and clots are passed with great difficulty and pain, and where micturition is very frequent and agonizing. Gastro-enterostomy in cases of irremovable pyloric cancer is generally attended with great benefit and notable prolongation of life. It is a good operation, well worth doing. Paracentesis, either of the pleura or peritoneum, is a simple operative procedure often attended with great benefit. He postpones tapping until the pressure of the fluid is causing marked dyspnœa or abdominal distress. The remarkable relief of pain, of vomiting, and of optic neurosis in cases of cerebral tumor, afforded by decompressing operations is well known. In Gould's experience the operation of lymphangioplasty has been a disappointing procedure, and he doubts if it is worth doing.

Under non-operative measures he says that he has not had any success with Coley's fluid, nor has he seen any case where it has effected a cure in what was known to be a case of malignant disease. Gamma radiations produced by the X-ray tube or by radium can undoubtedly inhibit cell growth, and they seem to have a special power over cancer and sarcoma cells, and more than this, they have the power of destroying malignant cells. He speaks very favorably of these radiations and reports several treated by this method, particularly by radium. By the use of X-rays in cancer of the breast he has seen foul ulcers cleaned; some ulcers have healed up entirely; he has repeatedly seen small secondary nodules in the skin and fascia disappear; he has had several cases where larger and deeper secondary growths involving muscle, ribs, rib cartilages, or sternum have disappeared, and in other cases such growths have remained stationary and quiescent for such long periods that he could only think the radiations had had at least an inhibitory influence on the growth. D. C. Balfour.

**Kafemann: The Non-Operative Treatment of Cancer According to the Principles Observed in the Heidelberg "Samariterhaus"** Die nichtoperative Behandlung des Krebses nach den Grundsätzen des Heidelberger Samariterhauses). *Med. Klin.*, 1913, ix, 161

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

On the basis of his studies and his personal experience in the Heidelberg "Samariterhaus," the author reviews the present state of the non-operative methods of treating cancer. Of those employing chemical cauterization, he gives special attention to Zeller's method. He recognizes the surprising effect of arsenic cinnabar paste on superficial tumors, carcinomata, sarcomata, and lupocarcinomata, but does not share Zeller's optimistic opinion that even deep-seated tumors may be cured by this method. In this connection he points out how life may be endangered by the hæmorrhages which would result from the erosions of the vessels by an agent which, like the one mentioned, indiscriminately destroys the tissues. The methods which employ silicic acid, so far, have not produced any appreciable results; nor have the toxin treatments done so. Among the latter the old streptococci toxin of Coley has proven the most effective, but it has had to be given up on account of its dangerous by-effects. Antimeristems, Doyen's as well as Schmidt's, the author declares have no effect whatever. While still undeveloped, chemotherapy, for which Wassermann's seleneosin treatment laid the foundation, is steadily progressing and promises well for the future. A detailed description is given of the cholin-seleno-vanadium treatment. Curative effects have even been claimed for salvarsan, especially in sar-

comata. The author expects good results from a combination of maximum potency radiotherapy with salvarsan, cholin-seleno-vanadium, and thorium-X. For that reason he urges postponement of operative removal of important organs, except in urgent cases, until this method has been given a trial. Among the physical methods of therapy, the treatment with X-rays has not fulfilled optimistic expectations, whether used alone or in combination with injections of adrenalin or fluorescent substances. The same must be said of its combination with stimulation by short-circuit sparks or with high frequency currents. These methods, like radiotherapy and the frequently even more effective mesothorium therapy, do produce results in many cases of superficial and protruberant tumors, but they fail almost completely with deep-seated tumors. Good results are claimed for the intravenous and intratumoral treatment with thorium-X; its action, however, is not indifferent. The author concludes that, now as ever, the rank of prime importance must be assigned to timely operation; where it fails, or in combination with it, he demands non-operative treatment according to the method which is applicable to the individual case. HOCHHEIMER.

**Simpson: Growth Centers of the Benign Blastomata, with Especial Reference to Thyroid and Prostatic Adenomata.** *J. M. Research*, 1913, xxvii, 269. By Surg., Gynec. & Obst.

The material for the author's studies consisted of 75 thyroids obtained at autopsy, without regard to age or pathological condition. In this series, adenomata were found in 80 per cent of the cases. Simpson states that it is his belief that if one were to make serial sections of all thyroids found in this region after the age of puberty (Freiburg-in-Breisgau), they would find these adenomata in nearly every case.

He concludes the struma nodosa is a true tumor formation; that the various forms described are different expressions of degenerated processes of these tumors. He believes that these degenerations begin at the oldest part of the tumor and therefore represent its origin or growth center as he has designated it; that these adenomata apparently occur as two primary forms, namely, parenchymatous and cystic; that the great majority are unicentric growths, although occasionally one finds two growth centers in the one capsule.

In regard to the prostatic adenomata, the author finds in reviewing the literature a great diversity of opinion regarding the genesis and pathological anatomy of the condition commonly called prostatic hypertrophy. It would appear that the more recent investigators are in accord with the view that the condition is a new growth. The author's material for this study consisted of 45 prostates obtained at autopsy, ranging from 7 months to 79 years of age.

The fibro-adenomata of the breast and myomata of the uterus were likewise studied. In these breast tumors, as in the prostatic adenomata, the tendency of the interstitial connective tissue to undergo degenerative changes was not marked, but the author found atrophic epithelial cells surrounded with fibrous tissue which, in comparison with the connective tissue in other parts of the same nodule, is extremely poor in nuclei. These areas the author considers the growth centers, and in rare cases one may find evidences of degeneration.

In the more rapidly growing myomata one finds, at these centers, evidences of more rapid change, viz., œdema, fatty metamorphosis, circumscribed necrosis, with a subsequent tendency to calcification. All are evidences, Simpson believes, of the relative rate of growth of tumor cells, and correspond to the original starting point of the tumor, or the "growth center" as it has been designated.

GEORGE E. BEILBY.

**Oser and Egon: The Significance of the Spleen During the Growth of Malignant Tumors, and the Influence of Splenic Pulp on Tumors** (Ueber die Bedeutung der Milz in dem an Malignant Tumor Erkrankten Organismus und die Beeinflüssung von Tumoren durch Miltzbrei). *Ztsch. f. exp. Pathol. u. Therap.*, 1913, xii, 295

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Oestreich explains the involvement of cartilage and vessel walls in tumor growth by the presence of chondroitin-sulphuric acid. He had hoped to make use of this fact in combating the growth of tumors. Reidel made antituman under his direction, the main constituent of the preparation being sodium chondroitin sulphate. Oestreich claims to have had good results with it, especially after tumor operations.

The authors tried it in hopeless cases and after operations. It was injected intramuscularly for 4 to 8 weeks in 9 cases of carcinoma of the breast recurring after operation, 2 scirrhous tumors of the mammæ, and 2 carcinomata of the mouth and one of the tonsil. The results were very unsatisfactory; in no case was there a cessation of the growth or a regression of the metastatic tumors. The patients complained of pain in the tumor for an hour or so after each injection.

Since the spleen is only rarely affected by malignancy, Braunstein experimented with a paste from it which he injected into animals afflicted with cancer. He came to the conclusion that the spleen had a high degree of immunity. Animals from which the spleen was removed 3 to 4 weeks before the experiments were begun showed a more rapid development of tumor tissue than the control animals. The authors, working on rats, found that sarcoma grew with exceptional rapidity under similar conditions. Normal rats injected with tumor cells were used as controls.

In another series of experiments the influence of injected splenic pulp on sarcoma was studied. The spleen was removed from rats that had received inoculation with sarcoma cells 14 days previously, and in which the tumors were the size of walnuts.

The spleen was triturated with normal salt solution and injected hypodermically into other tumor rats. Various tests were performed, and the results showed that the tumors of splenectomized animals grew more rapidly. The injection of the splenic pulp into sarcomatous rats caused a regression or arrest of the growth. The tumors did not get a start in rats which received the injection of spleen pulp at the time the sarcoma was inoculated. There seems to be an antibody developed which is not present in normal blood. KONJETZNY.

**Babcock: Superficial Metastatic Growths in the Diagnosis of Deep-Seated Malignant Tumors.** *N. Y. M. J.*, 1913, xcvii, 109. By Surg., Gynec. & Obst.

When a malignant tumor is discovered in the body it is customary to look for metastatic growths along the efferent, lymphatic and vascular paths. At times the malignancy of the primary growth is then proved by an exploratory operation. The author suggests a reversal of this customary procedure, urging that in suspected deep-seated malignancy search should first be made for superficial metastatic nodules, and if any new growth of the skin or subcutaneous tissue be found, it be excised under local anæsthesia and microscopically examined before an exploratory operation upon the primary tumor is considered. The reasons advanced for this method are: (1) The accessibility of the metastatic growths; (2) the lessened danger of hæmorrhage, infection, tumor dissemination, or leakage from a hollow viscus; (3) the essence of malignancy is focalized in the metastasis.

The proof of metastasis and a fresher and more accurate picture may be found in the secondary nodule than in a degenerated primary growth. Illustrative cases are given in which the nature of a brain tumor was shown in a localized papular eruption of the overlying scalp; obscure carcinomata of the stomach and thorax were proved by examination of supraclavicular nodules; a mesenteric nodule removed during an appendectomy showed the presence of a symptomless carcinoma of the stomach; a rapidly growing nodule over the lower thorax was the only definite outward indication of a small carcinoma of the sigmoid; and a dispute as to the nature of a lingual growth was settled by the examination of a cervical nodule. In malignant tumors of the liver, secondary growths may be found around the umbilicus, and all surgeons are familiar with the bluish or reddish macular or papular eruptions upon the skin overlying tumors of the breast which usually indicate an inoperable type of malignancy.

In many cases no other test or simple diagnostic method reveals as much as the positive evidence obtained by the microscopic examination of the superficial metastatic nodule. On the other hand, purely negative evidence, of course, does not disprove the presence of deep-seated malignancy.

**Küttner: Circumscribed Tumor Formations Caused by Abdominal Fat Necrosis and Subcutaneous Splitting of Fats** (Ueber circumscripte Tumorbildung durch abdominale Fettnekrose und subcutane Fettspaltung). *Berl. klin. Wchnschr.*, 1913, l, 9. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Küttner reports three observations which are important from the standpoint of the pathology of the fatty tissues. Circumscribed abscesses in abdominal fat necrosis are not uncommon, but circumscribed tumors such as the author describes in two cases had not been reported before.

In a corpulent woman, 56 years old, who was taken sick with severe and repeated abdominal symptoms, there developed a large, hard, round tumor the size of a child's head on the right side of the abdomen, which because of the history was regarded as an infiltration due to appendicitis. At the laparotomy this proved to be a conglomeration of adherent loops of intestine, which with the adherent omentum surrounded a cavity filled with necrotic fatty tissue and opaque fat droplets. The appendix was entirely intact. The cavity was emptied and tamponed and healing resulted. The microscopic examination showed the content of the cavity to consist of necrotic fat tissue, cells containing fat droplets, and a few round cells. Neither eggs nor tumor cells could be found. Bacteriologic examinations were negative.

Case 2 was that of a 45-year-old stout man who complained of chills and high fever with pain in the region of the liver and stomach that radiated to the right shoulder and right arm. He was constipated and passed no gas. The next day a tumor developed in the gall-bladder region which was sensitive to pressure. This was soon followed by icterus. Two and a half months after the disease began, an elongated, hard tumor was found in the region of the gall-bladder, which was regarded as a tumor of the gall-bladder. At operation it proved to be a tumor of the omentum, which on cross section had a peculiar appearance and seemed to be composed of necrotic fatty tissue. Microscopic examination corroborated this diagnosis. Gallstones were not found. In the region of the pancreas and in the abdominal cavity nothing pathologic could be seen. In Case 3, which was of an entirely different etiological origin, we have to do with a tumor formation in the breast produced by a change in the fat tissues. A 63-year-old woman received a blow in the breast. A few weeks later she discovered at the site a nodule which on examination appeared in the lower quadrant as a hard fixed tumor the size of a nut. At the operation it was shown to be a tumor of the subcutaneous fatty tissue and was not connected with the glands. The fat had the peculiar opaque appearance and consistency which was characteristic of abdominal fat necrosis. Microscopic examination showed a characteristic giant cell granuloma. The giant cells were arranged radially about collections of fatty acid crystals. There had been a splitting off of fatty acids from the fat and a chronic

inflammation in the tissues. Whether the fat splitting was primary and caused an inflammatory reaction of the tissues, or whether a primary chronic inflammation of the connective tissue led to a secondary splitting of the neutral fat, could not be determined, although the picture of the foreign body giant cells pointed more to a primary fat splitting with secondary inflammation. A relationship between this process and the trauma appears likely.

KONJETZNY

**Sample and Gorham: Malum Perforans in Diabetes Mellitus; a Report of Seven Cases.** *Bull. Johns Hopkins Hosp.*, 1913, xxiv, 28. By Surg., Gynec. & Obst.

At the request of Prof. Barker the authors have made a study of the clinical aspects of malum perforans as a complication of diabetes mellitus, based upon the findings in seven cases admitted to the Johns Hopkins Hospital. Two of the cases were studied by the authors personally, and the details of the others were taken from the hospital records. Their study of these cases still left the etiology of the condition in doubt. While several authors believe that the ulcer depends upon changes in the peripheral nerves, Sample and Gorham are inclined to argue against this view, from the fact that in these cases the sensory disturbances were slight, and further, the ulcers did not present the same picture as that seen in known forms of chronic neuritis. The mechanical factor, they believe, has some etiologic importance, as that due to constant pressure exerted on certain parts of the feet in walking or standing. In favor of this theory is the marked improvement which in some cases follows upon rest in bed and removal of the pressure. It is probable, however, that the mechanical factor is nothing more than a contributory cause. The third theory offers vascular change as the primary cause of perforating ulcer, but in the majority of cases here reported no arteriosclerosis, or only a slight grade, exists in the vessels leading to the part affected. Endarteritis obliterans must, however, be borne in mind. The view that the true cause lies in a disturbance of tissue vitality due to the existing hyperglycæmia seems a rational one. As a result of this lessened tissue resistance one might well explain the frequent appearance of furuncles, carbuncles, and gangrene. The initial lesion is often in the form of a small vesicle which later develops into an ulcer, or the process may take its origin from an infected corn. The condition may be superficial, limited to the skin and subcutaneous tissues, or it may extend more deeply, involving bone or cartilage, or opening into a joint. The metatarsal phalangeal joint is a favorite seat for such a pathological change. GEORGE E. BEILBY.

**Proescher: Etiology of Rabies.** *N. Y. M. J.*, 1913, xcvii, 15. By Surg., Gynec. & Obst.

Microscopically visible organisms appearing in two forms, coccus and bacillus, were found by the antiformin method in the brain, the nerve ganglia and salivary glands of rabid animals.

, Their etiological relation to rabies was demonstrated by the production of typical rabies in rabbits injected intracerebrally with the antiformin sediment of fresh brains from rabid animals.

Owing to the rather difficult technique employed in the antiformin process, many experiments with anilin dyes were tried to demonstrate microorganisms by substantive staining. Methylenazur alone, in the form of the easily dissociable methylenazurcarbonate, will stain the rabies virus. It will stain the entire life cycle of the virus, including a spirochæte form which was not shown with the antiformin method.

The spirochæte f rm will satisfactorily explain the route of infection of the rabies virus, which travels along the nerve fibers. The spirochæte and bacilli forms develop from the cocciform.

The efficiency of the staining method was tested by staining the fixed virus from different Pasteur institutes, the same micro-organisms being found in all stains.

**Watson: The Negri Bodies in Rabies.** *J. Exp. Med.*, 1913, xvii, 29. By Surg., Gynec. & Obst.

Watson concludes, as the result of a large amount of histological work, that the Negri bodies are the etiological agent in rabies and that they present two general types or phases in morphology, in growth and in reproduction. These two phases are constantly cyclic in their development and correspond to a multiplicative or schizogonous, and to a reproductive or sporogonous, life cycle. Watson is inclined to believe that the Negri bodies are definite protozoan parasites and, from a study of their life history, places them in the sub-order of cryptocysts, of the sporozoa. JAMES F. CHURCHILL.

**Risley: Shock: A Review of the Theories and Experimental Data to Date.** *Boston M. & S. J.*, 1913, clxviii, 112. By Surg., Gynec. & Obst.

As early as 1568 the phenomenon of shock was recognized, and was supposed to be due to a foreign body in the wound or blood. From that time down to the present there have been a great many theories, most of which have been proven false. As the problem stands to-day there are several contradictory theories which are all pretty well based on experimental evidence.

Crile maintains that vasomotor exhaustion is the primary cause. Boise thinks that cardiac exhaustion is the prime factor, whereas Howell believes that both cardiac and vascular changes are at fault. Kinneman considers a disturbance of thermogenetic functions as the chief element, and Henderson a reduction of the carbon dioxide content of the blood and tissues (acapnœa).

Shock is a "condition induced by fear, exposure, infections or trauma, in which there is exhaustion of nerve cells, principally those of the vasomotor centers, but also, probably to a much less extent, of

other centers in the medulla, such as respiratory and cardiac, and consequently lowered vascular tone and cardiac and respiratory depression of so even a degree as often to result in death."

Malcolm of London believes, from a clinical standpoint, that if vasomotor exhaustion is present there should be a relaxation of the peripheral arterioles and an overfilling. As a matter of fact, all clinical evidence speaks against such an overfilling, as the body is cold and clammy, the mucous membranes are anæmic and incisions during shock are almost bloodless. Crile, however, explains this condition by saying that the blood in all probability has already flowed *through* the dilated arterioles and has collected in the deep veins, where it is demonstrable after death.

Liebig and Lyon, working on vagi by electrical stimulation, prove that vasomotor exhaustion does not occur in shock, but rather vasoconstriction. Their work, however, is limited to one class of experiments, and does not prove alike for all kinds of surgical trauma and shock.

The theory of Henderson is that the underlying cause of shock is a decrease in the carbon dioxide content of the blood and tissues and an over-oxygenation, a condition called acapnœa. This robs the respiratory center of its normal stimulus, and spontaneous respiration ceases. If the acapnœa is intense, respirations may cease for so long a time that the heart finally stops beating because of lack of oxygen. With acapnœa there comes a fall in blood pressure and dilation of the splanchnic veins, as it has been shown that the tonicity of the blood-vessels is in direct proportion to the carbon dioxide content of the blood.

Crile's work on shock is probably more exhaustive than any other. He believes the essential factors to be considered in surgical shock are: trauma, the anæsthetic, a primary rise with a following fall in blood pressure, decrease in body temperature and vasomotor inhibition, paralysis, and then exhaustion. In addition to these factors, more recent experiments of Crile have shown that there are histologic changes in the nerve cells of an animal which has been subjected to shock. These cells stain faintly and indistinctly and show degenerative changes. Crile goes further and states that there is strong evidence to show that traumatic influences which damage the nerve cells of the cerebral cortex are not prevented from acting upon the nerve cells even though the patient be under a general anæsthetic. This evidence has led to the elaboration of Crile's anoci-association theory and the inclusion of nerve blocking in his operative technique.

James H. Skiles.

**Marcuss: A Case of Muscular Dystrophy after an Accident** (Fall von Muskeldystrophie nach Unfall). *Monatsch. f. Unfallh. u. Invalidenw.*, 1913, xx, 18.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

A brakeman, 20 years old, suffered from a severe bruise of the left upper thoracic wall. He developed a traumatic pneumonia, from which he recovered. The muscles of the shoulder and breast soon started to atrophy. This gradually affected the whole left arm. After 3½ years, the musculature of the right shoulder also started to atrophy. It was evident that this case was more than an atrophy due to injury. It was diagnosed as juvenile muscular dystrophy. The relation of the injury to the disease is difficult to perceive. The patient was apparently strong and healthy before the accident. According to Marcuss, however, the patient may have had a beginning muscular dystrophy at the time of the accident, and the trauma may have activated it.

Grashey.

**Carrel: Artificial Activation of the Growth in Vitro of Connective Tissue.** *J. Exp. Med.*, 1913, xvii, 14.
By Surg., Gynec., & Obst.

Carrel has studied the effects of tissue extracts on the rate of growth of connective tissue in vitro and finds that extracts of tissues and tissue juices, under certain conditions, accelerate the growth from about three to forty times. This activating power is found in many tissues. It is much more marked, however, in the extracts of embryos, of adult spleen, and of the Rous sarcoma. The power diminished directly with the dilution of the extracts, and appeared not to apply to the tissue of a heterologous animal. The power was reduced when heated to 56° C., and destroyed when heated to 70° C. It was diminished markedly by filtration through a Berkefield filter and was completely removed by filtration through a Chamberlain filter.

James F. Churchill.

**Dilger: Tissue Cultures of Grown Animals in Vitro** (Ueber Gewebskulturen in vitro unter besonderer Berücksichtigung der Gewebe erwachsener Tiere). *Deutsche Ztschr. f. Chir.*, 1913, cxx, 243.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Dilger in his work questions the results of Burrows and Carrel in their experiments with tissue cultures. He wonders whether there was any actual growth in the cultures of Burrows and Carrel. Does genuine budding and cell division occur, or is the change uniform in the whole tissue, or is there any real organic change? An active growth of cells is said to take place in such tissue cultures. A transformation of round cells into spindle cells had been observed in cultures of embryonal tissue. Nerve and mesenchymatous cells of chicken embryos show the greatest tendency to growth. On the contrary, no growth of tissue takes place in healing wounds of visceral organs. For example, the formation of parenchymatous tissue in the spleen in case of wounds of that organ never takes place. The regeneration of functional renal tissue in scars of the kidney never occurs.

It is essential, according to Dilger, to know the age and kind of animal the tissue is taken from. Careful tabulations of the age of the animal were lacking in preceding articles on the subject. Carrel and Burrows observed an increase of volume in their

cultures; karyokinetic figures were particularly noticeable. They described two kinds of formed cells which they took for connective tissue and epithelial cells, although they admit that the cells were not very typical. Dilger, on the other hand, could not confirm the presence of epithelial cells on the cultures of kidney and liver tissue taken from grown animals. At times he could detect some typical epithelial cells, but he says that it was tissue misplaced in the preparation. However, the author could always detect large numbers of interstitial and migratory cells along the border. These cells, the epithelial buds of other authors, are only illusions according to Dilger. Scattered epithelial cells can easily get down into the tissues when the preparations are made. These cells gradually work their way to the surface with the fluid. Cultures of epithelial cartilage taken from a pup six days old exhibited no increase in volume. Dilger says this was to be expected in such dense compact tissue. Cells fail to emigrate through firm cartilaginous tissue. Neither was anything characteristic seen in the resistant periosteum except in one small area where he microscopically demonstrated spindle and polygonal cells.

Most of the experiments were confined to spleen and bone marrow. Spleen and bone marrow cultures immediately exhibited cell emigration. Cell growth and emigration vary in direct proportion with texture of the tissue. The more perforated the tissue the greater the growth and emigration. Karyokinesis, according to Dilger, does not speak for genuine growth because karyokinesis can be demonstrated in normal tissue in all organs, even in adult life. The enumeration of the cells undergoing division, as Carrel had done it, is not of much value according to the author, because of error.

Degenerative changes soon occur in the cells. Fatty droplets and fine granulations appear. The whole picture points to a passive fermentative process which is probably mechanical. It is hard to understand how malignant tumors resulted from the cultures of Carrel and Burrows. Haddas could not produce malignant tumors with the cultures under the same conditions. The numerous researches in the formation of antibodies in cultures show that pieces of tissue may survive and remain physiologically active. RUBESCH.

**Atkey: Tetanus Treated by Intravenous Injections of Paraldehyde and Copious Injections of Normal Saline, Resulting in a Cure.** *Lancet*, Lond., 1913, clxxxiv, 168. By Surg., Gynec. & Obst.

The patient, a boy aged 19, was admitted to the Khartoum Civil Hospital for some very septic tuberculous sinuses of the neck. Two days later he developed definite signs of tetanus. For seven days he was given intravenous injections of paraldehyde and ether in normal salt solution. The doses varied from 5 to 30 cc. each of paraldehyde and ether in 150 to 300 cc. of normal salt solution. The infusions were given as the severe symptoms appeared. As soon as he showed improvement chloral and bromide were ordered. This mixture was continued three days. Sixteen days after the onset the symptoms disappeared and three weeks later he was discharged from the hospital in good condition. The author believes it advisable to begin with a fairly large dose. C. H. DAVIS.

**Kästner: A Method to Demonstrate Isolated Actinomyces** (Ein Verfahren zur isolierten Darstellung des Aktinomyses). *Berl. tierärztl. Wchnschr.*, 1913, xxix, 77. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The method is based on the use of 33 per cent potassium. This destroys the albuminous cellular constituents of the tissue, but leaves the formed elements of hypomyetes intact. Finely divided pieces of tissue are placed in a centrifuge glass and potassium is poured over them. After 24 hours (after having been stirred several times) the fungi are collected in the bottom of the glass. These are examined, unstained, in glycerin. Staining is easily done with aqueous eosin and vesuvin by pouring the staining solution over the sediment and leaving it for 24 hours. Sections are placed in xylol, alcohol, water and 33 per cent potash for 24 hours, then washed and examined in glycerin. In this way, not only the colonies of fungi but also the formed elements found isolated in the tissue may be seen as yellow, highly refractive globules. WOLFSOHN.

## SERA, VACCINES, AND FERMENTS

**Welch: Normal Human Blood Serum in the Treatment of Hæmorrhagic Disease of Infants and Children.** *N. Y. M. J.*, 1913, xcvii, 125. By Surg., Gynec. & Obst.

This article begins with a discussion of anaphylaxis in its relation to the giving of serums. It then speaks of the efficacy of the injection of human blood serum in cases of hæmorrhagic diseases of the newborn. To this are appended the histories of three cases. Welch believes that the condition is the result of a disturbance in the balance of the ferments of the endothelial cells lining the blood-vessels. As to the use of blood instead of blood serum, Welch urges that the extra work put upon the system by the formation of isolysins should be taken into consideration. Also, in regard to direct transfusion, he thinks that while it is in some cases absolutely necessary there are certain dangers attached to it, and it is by no means an easy operation. C. G. GRULEE.

**Zubrzycki: Contribution to the Treatment of Anæmia by Intramuscular Injections of Defibrinated Human Blood** (Beitrag zur Bekämpfung der Anämie durch intramuskuläre Injektionen von defibriniertem Menschenblut). *Wien. klin. Wchnschr.*, 1913, xxvi, 95.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author reports 6 cases of severe metrorrhagia which were treated with injections of defibrinated

human blood with favorable results. The 6 cases dealt with women who had lost much blood and been treated conservatively and by curettement without effect. The favorable influence of the injections upon the blood is shown in the tabular registration of repeated blood examinations. The injections are easily applied, painless, and without danger. The author briefly explains the technique of this method, but admits inability to explain the manner in which results are obtained. Strong and healthy pregnant women were chosen as donors, and the treatment consisted in several intragluteal injections of 20 to 30 cm. of fresh defibrinated blood at intervals of three to four days. EISENBACH.

**Sweek and Fleisher: Inhibition of Hæmolysis by the Serum of Cancerous Individuals.** *J. M. Research*, 1913, xxvii, 383.

By Surg., Gynec. & Obst.

Kelling noted in 1906 that the serum of cancer patients possessed an increased hæmolytic activity when mixed with the corpuscles of lower animals. Even before this, other investigators had noted that serum of cancer patients possessed hæmolytic properties, but Kelling was the first to apply this test to the diagnosis of cancer. Crile, who has studied the subject exhaustively, has found that in the majority of cases of cancer the hæmolytic power of the serum for human corpuscles was greater than that of the serum of normal individuals.

The inhibitory power of the serum of cancer patients has also been investigated; it has been found that hæmolysis by mercury bichloride is not as strongly inhibited by the addition of cancerous serum as by the addition of normal serum. Lately Goldberger, who investigated the hæmolytic action of various acids, found that the serum of patients suffering with cancer possessed a markedly higher antihæmolytic power than the serum of normal individuals or of individuals suffering from diseases other than cancer. Sweek and Fleisher have therefore been making experiments to determine the results with both normal and cancer sera and lactic and oleic acids. Their results they give briefly as follows: In this series of experiments the authors find that the serum from 18 cancer cases and 12 normal individuals was tested for its antihæmolytic properties with lactic acid; 18 cancer cases and 12 normal individuals were tested with oleic acid. In no case was any marked increase of the inhibitory power of the serum of cancer patients evident. It therefore appears that the determination of the antihæmolytic activity of the serum of cancer patients cannot be used as a diagnostic method, and furthermore there is no evidence that an increased antihæmolytic activity exists in the sera of cancer patients; it also appears from their experiments that the antihæmolytic property of normal individuals living under uncontrolled conditions varies within rather wide limits.

GEORGE E. BEILBY.

**Ulrich: Vaccines and Vaccine Therapy.** *J.-Lancet*, 1913, xxxiii, 39. By Surg., Gynec. & Obst.

After reviewing the essentials of immunity on which vaccine therapy is based, attention is called to the inherent limitations and scope of this method. Emphasis is placed on preventative vaccination such as is already taking place in typhoid, bubonic plague, and cholera. One of three results obtains when bacteria invade the body and a reaction takes place: (1) Complete restitution, or sterilization; (2) partial restitution, or incomplete sterilization; (3) death. It is in the large class of chronic diseases, ranging from the recrudescences of mucous membrane infections to the old sinuses, remnants of abdominal, thoracic, and bone surgery, that vaccines have their most successful and legitimate use.

Four of the five cases illustrate the chronicity of infectious processes, with their periodicity of increased virulence and intervals of semiparasitism. The social and economic effectiveness of the individual is greatly reduced by these infections. This group crowd the offices of physicians. In each attack the usual old methods of procedure are used. Much can be done to relieve this monotony by intelligent use of vaccines.

Some of the more important conclusions in the summary are:

Vaccine therapy is an indispensable adjunct to our modern methods.

Owing to our lack of standards, due not only to media on which bacteria grow but also to the difference in virulence, particularly of the pneumococcus, pneumobacillus, typhoid and colon bacillus, the question of dosage as well as results will be variable.

The recurrence of infection is one of the prime difficulties in advocating this treatment to the layman. We naturally cannot guarantee permanent immunity against any infectious process.

To institute their use successfully (vaccines), the clinician should be in touch with the laboratory in which his vaccines are made.

The indiscriminate use of stock vaccines will be gradually replaced by the use of autogenous vaccines carefully planned in consultation with the laboratory in which they are made.

**Austrian: The Effect of Hypersensitiveness to a Tuberculo-Protein upon Subsequent Infection with Bacillus Tuberculosis.** *Bull. Johns Hopkins Hosp.*, 1913, xxiv, 11.

By Surg., Gynec. & Obst.

The author's interest in this problem was brought about largely by a series of monographs by Romer (P. H. Romer, *Beitr. z. Klin. d. Tuberk.*, 1908, xi, 79). In order to test the validity of his assertion that the hypersensitive state was responsible for the immunity, the author carried on a large series of experiments on guinea pigs. The tuberculoprotein used for sensitization in experiments was made according to the modification of the technique as amended by Baldwin. Three strains of human type tubercle bacilli, H39, obtained from the Sara-

nac Laboratory, and Ha and Hb, isolated from the sputa of two patients ill with tuberculosis, were used for the inoculations. The results of the experiments are far too exhaustive and technical to allow of summarizing, but in the main it is clear that the evidence furnished by the various series of experiments demonstrated the fact that sensitization of tuberculoprotein had definitely dimished the resistance of the animals to infection with living bacilli of the human type. Mindful of the fact that tuberculous animals, though immune to reinfection with small numbers of bacilli, are less resistant to reinfection with larger numbers of the organisms, a second series of guinea pigs with parallel series of control animals were infected with similar doses of the strain of tubercle bacilli used in the preceding experiments. The findings in these are a confirmation of those already noted. Although the infecting doses of tubercle bacilli were small, the already sensitized animals showed more extensive disease than did the non-sensitized controls. Rabbits which are relatively insusceptible to infection of the human type of tubercle bacillus were used also in a second series of inoculations, and the results were unique, for, so far as the author has been able to determine, an acute lethal tuberculosis had not previously been produced in rabbits with a small infecting dose of human type tubercle bacillus. Several of the sensitized rabbits used developed a clinical picture described by Theobold Smith in rabbits inoculated with the bovine type of the organism. Eight of the sensitized animals developed dyspnœa and five died from tuberculosis within 67 days after inoculation. In five sensitized and in two control animals tubercles developed at or near the site of the intravenous inoculation.

For the present the following conclusion seems justified: Hypersensitiveness produced in guinea pigs and in rabbits by sensitization with a protein obtained from the bacillus tuberculosis, human type, by water extraction, exerts a baneful or a neutral influence on a subsequent tuberculous infection. Whether or not a similarly produced condition of hypersensitiveness would influence differently the course of infection with a very few organisms cannot be stated. GEORGE E. BEILBY.

**Hartoch: The Rôle of Albumin in Anaphylaxis** (Ueber die Rolle des Eiweisses bei der Anaphylaxie). *Petersb. med. Ztschr.*, 1913, xxxviii, 1.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author discusses the question of anaphylaxis, and gives the views expressed by various workers in this line to explain the cause. It is a question what form of albumin causes the trouble. Some authors believe it to be due to the peptones and others to diamino-acids. The author then attempts to explain the infectious diseases by over-sensitiveness, on the part of the individual, to the albumin formed by the bacteria. During the incubation period the corresponding antibodies develop. When these combine with the antigen, by aid of the complement, toxic products are produced from the bacterial albumin, the action of which causes the symptoms of the disease. He considers anaphylaxis the increased power of the organism to digest and neutralize the corresponding parenteral living bacterial albumin, as well as the cause of the disease. Anaphylaxis is a preliminary stage of immunity.

A. HARF.

**Dale: The Anaphylactic Reaction of Plain Muscle in the Guinea Pig.** *J. Pharmacol. & Exp. Therap.*, 1913, iv, 167. By Surg., Gynec. & Obst.

This is a description of an original piece of work. In the introduction, the author enumerates the hypotheses concerning the causes of anaphylactic shock in the guinea pig. He notes the theory of sessile receptors and explains briefly the more recent view of the action by a poisonous product of partial proteolysis, either through a specific ferment or other digestive action. Because of certain objections to this fermentative action, Dale notes two main questions at issue: first, does the reaction take place in the circulatory fluids or in the responsive tissues; and second, is the shock due to a physical change or to the production of a poisonous digestion product.

To answer the first question, the author points out that it suffices to isolate muscle and free it from body fluids. He mentions his method and states that he selected for his experiments the uterine horn from a virgin guinea pig, emphasizing that it is necessary to use very small and slender uteri. He states at the outset that his method of procedure differs from that of Schulz, who previously made somewhat similar experiments and whose work and conclusions he discusses fully. Schulz regards the anaphylactic reaction as an exaggeration of the normal response of plain muscle to large doses of native sera or other protein-containing bodies, and Dale believes that Schulz is confusing two distinct though similar phenomena, namely; the toxic action of large doses of fresh sera and other proteins and the specific action of minute doses of the sensitizing protein on the sensitized animal.

A number of tracings are given and clear descriptions of the same. The non-action of sera or proteins other than the sensitizing one is graphically shown, and of particular interest is the immediate and marked response to the latter substance, the action occurring with as little delay as that of drugs applied under the same conditions. A dilution of 1 in 1,000,000 suffices to give a definite, though not a maximum, response.

Some experiments were made showing the effect on the anaphylactic muscle of repeated doses of the sensitizing substance. These show that a single dose, if it will cause a maximum response, will remove completely the sensitiveness so that later doses are without effect, provided that non-toxic preparations or doses below those having an action on normal tissues are used. This process of desensitization probably corresponds to the anti-anaphylaxis of the whole animal.

It has been shown by previous investigators that guinea pigs may be anaphylactic to three proteins at the same time, and that a non-fatal injection of one of the antigens leads to antianaphylaxis to that one alone, with subsequent typical reactions to the others. Dale's observations lead him to point out that a guinea pig receiving small simultaneous injections of several different sera acquires to none of them the high degree of sensitiveness which might be predicted from the injecting of any one alone. He suggests that a more extended incubation period might be necessary under these conditions. He also points out that desensitization to one antigen is not wholly without effect on the sensitiveness to others, though there is some degree of independence.

In animals immunized to horse serum, Dale found, confirming other experimenters, that such immunity may coexist with a well-marked supersensitiveness of plain muscle, but that the specificity is qualitatively, not quantitatively, the same; also, that with time, there is a gradual desensitization of the tissue of the immune animal distinct from its protection by circulating antibody.

Guinea pigs may be passively sensitized by the injection of serum from an animal made actively anaphylactic or by injection of serum from immunized animals. This sensitization is not immediate, 24 hours, perhaps less, being an average interval. The time to produce anaphylaxis has been considered that interval necessary for fixation of specific antibody to the tissues. Dale's problem here was, if this view is correct, to show sensitiveness in the uterus of such a passively sensitized guinea pig. His experiments show that this was actually present, and that such a muscle could be desensitized by the first dose, but that the sensitiveness of the muscle of such a passively sensitized animal was not as marked as that from an animal made actively susceptible. He also made the observation that after desensitization it is possible to effect a passive sensitization of the uterus in vitro, and that the first subsequent dose desensitized the muscle. This experiment was done with the uterus of an animal actively, and one passively, sensitized. A normal uterus soaked in a solution of horse serum did not give the decided sensitization. By perfusing the organ with a solution of such serum, a result was obtained, after about five hours, which suggested strongly those reactions obtained from muscle taken from sensitized animals, including the desensitization.

On the period which must elapse before sensitization could be detected, Dale found that the susceptibility occurs first between the sixth and eighth day after the sensitizing injection and increases rapidly up to the twelfth day.

There are various features of anaphylactic shock in guinea pigs observed which seem to be unrelated to the effect on plain muscle. By a series of nicely controlled experiments Dale attempted an explanation of the death. He concludes that, for the immobilization of the lung, or as previous writers have stated it, a valve-like closure of the bronchioles, which is the cause of death of anaphylactic guinea pigs, there is no necessity for assuming any other than the immediate action of the antigen on the sensitized muscle. WALTER H. BUHLIG.

## BLOOD

**Yatsushiro: An Experimental Study of Emigration of Leucocytes in Inflammation** (Experimentelle Studie uber die Emigration von Leucocyten bei der Entzundung.. *Frankf. Ztschr. f. Pathol.*, 1913, xii, 80.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

By a series of experiments, the author has demonstrated the untenability of the physical theory of leucocyte emigration and has furnished the proof that chemotaxis of itself is a sufficient explanation of this phenomenon. Even the assumption of a primary injury of the vessels was proven untenable, causing the fall of the last prop of the physical theory.

By the employment of an agent, aleuronate, which has only chemotactic action, the author was able to produce emigration of white blood corpuscles and to trace them through the wall of the vessel, from the venous lumen to the surrounding tissues. Yet the phenomena which in inflammatory processes accompany emigration of leucocytes did not appear. In these inflammatory processes emigration is always associated with dilatation of the small veins and capillaries and resultant retardation of bold circulation, increase in blood pressure, and exudation. In the author's experiments these phenomena, by which the physical theory explains emigration, were absent. On the contrary, instead of dilatation of the vessels, which is regular in inflammation, the wall of the vessels showed collapse, even though slight, at many points where it had been touched by the aleuronate. This retardation of blood circulation is of itself rejected as a causal factor of emigration.

The confinement of leucocyte emigration to the area treated with aleuronate is proof that a supposed increase of blood pressure cannot come into consideration as a cause of emigration; for an increase of blood pressure within so circumscribed an area is unthinkable under the hydrodynamic law.

In a second series of experiments, in which the author did not employ aleuronate but confined himself to exposing the walls of the vessels, the analogous phenomena of emigration reappeared. This, therefore, further substantiates the argument in favor of the chemotactic theory, as it is impossible, in this case, to point to any modification of blood circulation, while in the first series of experiments a slight pressure by the aleuronate is barely possible. The outcome of these experiments furthermore contradicts the other theory that precipitation of fibrin on the inner wall of the vessel is a prerequisite of leucocyte emigration.

The experiments were all performed on one of

the larger abdominal veins of a rabbit, so that it has been shown that leucocyte emigration can also occur from the larger vessels. GENEWEIN.

**Krabbel: Tubercle Bacilli in the Blood Stream in Cases of Surgical Tuberculosis** (Tuberkelbacillen im strömenden Blut bei chirurgischen Tuberkulosen). *Deutsche Ztschr. f. Chir.*, 1913, cxx, 370.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author gives a résumé of investigations on the subject, and finds that the results are conflicting. Thirty cases of surgical tuberculosis were examined by the Schnitter method. Ten cc. of blood was carefully mixed with 20 cc. of 3 per cent acetic acid solution and allowed to stand for a half hour. It was then centrifuged and the supernatent fluid drawn off, the sediment diluted with a few cubic centimeters of water; two to five times as much 15 per cent antiformin solution was added, thoroughly mixed, and then centrifuged. The sediment was washed and then spread on two slides.

His results are as follows: 12 out of 18 cases of bone tuberculosis were positive, 66 per cent; 1 out of 5 cases of tuberculous glands, 20 per cent; 1 out of 4 cases of skin, mucosal and synovial tuberculosis, 25 per cent. The low percentage of positive findings in gland tuberculosis is explained by the fact that the process is localized, its entry having been through the tonsil or mucous membrane. In bone tuberculosis the infection has come through the blood stream. The age of the patient and the duration of the disease are unimportant. The prognosis is not affected by the presence of the tubercle bacilli in the blood, excepting in such cases where clumps of the bacteria are found. The author believes that in those cases in which tuberculosis of the lung does not account for the bacteræmia, tuberculosis of the bone is a safe diagnosis. HAGEMANN.

**Schneller: Uric Acid Determination in the Urine and Blood** (Zur Methodik der Harnsaure bestimmung im Urin und im Blut). *Ztschr. f. exp. Pathol. u. Therap.*, 1913, xii, 341.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Although the tedious methods of Ludwig, Salkowski, and Krüger and Schmidt give equally exact results, the author found the Röthlisberger and the Ruhemann apparatuses inexact for a quantitative determination of uric acid. Experiments showed that none of the four methods was reliable where the blood contained only a few milligrams of uric acid. Schneller has a more accurate method. He adds neutral formaldehyde to the blood before boiling it, in order to avoid bringing down uric acid when the albumin coagulates. In this way the uric acid combines with the formaldehyde to form formaldehyduric acid. The precipitation of the albumin is brought about with potassium phosphate or potassium biphosphate. The quantitative determination of uric acid is then made with the filtrate according to Krüger and Schmid. With this method .5 mg. of uric acid in 100 cc. blood is detectable. In conclusion the article deals with a lengthy description of the formaldehyde method. ELISABETH WEISHAUPT.

**Nolf: A New Theory of Blood Coagulation** (Eine neue Theorie der Blutgerinnung). *Ergebn. d. inn. Med. u. Kinderh.*, 1913, x, 275.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In this article, a comprehensive account of Nolf's theory of blood coagulation is given, a theory which is most deserving of attention. In contrast with the hitherto accepted theories, it looks upon blood coagulation not as a fermentative process but as one of simple reciprocal elimination of the colloidal factors in the coagulative process. These coagulative factors — of which there are three; thrombozyme, thrombogen, and fibrinogen — are contained in the plasma in a certain equilibrium of solution. They give to the plasma the important property of spontaneous coagulation. In the process of coagulation, these coagulative factors themselves completely disappear. There remain fibrin and thrombin — the latter in solution in the serum and therefore to be regarded as a product of coagulation. Any influence or any substance which has the power of disturbing the equilibrium of the colloidal coagulable solution and thereby promoting its insolubility is called thromboplastic. Thromboplastic (i. e. coagulant) influences proceed from extracts of the tissues, other colloids, and from contact with insoluble bodies (superficial action). In the circulating blood, antithrombin, which is derived from the liver and has an inhibitive effect on coagulation, acts as a regulative check upon the thromboplastic influences. In conclusion the article considers the relations between thrombolysis and pathological coagulation of the blood. HARTERT.

**Bluhdorn: The Therapy of So-Called Uncontrollable Hæmorrhage in Infancy** (Die Therapie sogenannter unstillbarer Blutungen im Säuglingsalter). *Berl. klin. Wchnschr.*, 1913, l, 14.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

These hæmorrhages are absolutely not influenced by the ordinary surgical measures, because we have to do with anomalies of blood coagulation. Three cases cited from the University Clinic of Göttingen, which represent three different types of this disease, give a picture of the serum calcium therapy used.

Case 1. Melæna neonatorum (three days old). Injection of 2.5 cc. horse serum (diphtheria serum) and internal medication of 0.5 cc. calcium acetate every two hours, 3 gm. in the first 12 hours, then in decreasing doses. The profuse hæmorrhages with which the child entered the clinic stopped immediately after the injection.

Case 2. Henoch's purpura (six months old). Hæmorrhages into the intestines and tissues appeared in a child which was brought to the clinic because of marasmus. After excluding a possible invagination, 3.8 cc. diphtheria serum were injected and 2 gm. calcium chloride were administered within 10

hours. The hæmorrhages into the intestine promptly ceased, while those into the tissues continued. After further administration of calcium, and on the third day a second injection of 3.8 cc. diphtheria serum, this also gradually ceased.

Case 3. Hæmorrhage of the umbilical cord, with sepsis, followed by a severe icterus (10 days old). In this case it was determined in a test tube that the coagulation time of the umbilical blood of the patient was about 7 minutes; of normal blood, about 2 minutes; of a mixture of umbilical blood and serum in equal parts, about 2 minutes; of umbilical blood mixed with coagulated blood, about 50 seconds. Serum was injected subcutaneously about the umbilical wound, from which, as in the preceding case also, a rather severe hæmorrhage resulted from the needle puncture; a tampon soaked with human blood and serum was put directly upon the wound, and 4 gm. calcium chloride were given internally per day. In this case also there was a prompt result and cure.

In melæna neonatorum there is, according to the researches of Whipple, a lack of thrombin, while fibrinogen and lime salts are present in the usual amounts. In the case of Henoch's purpura we have to do with a diminution of lime salts. In the case of septic hæmorrhage from the umbilical cord no diminution in either of the three constituents could be determined. In these cases treated with lime salts or gelatin injection no results could be achieved heretofore; they always resulted in death from hæmorrhage within from two to three days. It was possible to effect a cure by the combination of calcium with serum injections. The diphtheria serum, because of the danger of anaphylaxis in a subsequent injection, should be freshly prepared; but this is possible only in clinics. In practice, the diphtheria serum is relatively the freshest and most easily procurable for treatment. Of the calcium salts, the soluble calcium chloride or calcium acetate, should be preferred to the insoluble calcium lactate or citrate, because they are more easily resorbed. It should be given in amounts of 3 to 6 gm. during 24 hours, preferably in a 5 per cent solution (Calc. acet. 10.0; liq. ammon. anis. 2.0; gummo arab. 1.0; saccharini q.s.; aquæ ad. 200.0). After effects on the gastro-intestinal tract (loss of appetite and tympanites) do not result, because of the short time it is administered. There is some objection to the subcutaneous administration of calcium gelatin advised by Miller and Saxl because of the after effects (pain and fever). STETTINER.

**Clowes and Busch: Treatment of Hæmorrhage by Means of Precipitated Blood Sera, Together with the Method of Estimating the Activity of the Latter.** *N. Y. M. J.*, 1913, xcvii, 16. By Surg., Gynec. & Obst.

Blood serum, even when preserved sterile, rapidly loses its efficacy as an agent for checking hæmorrhage. Fresh serum precipitated by means of a mixture of acetone and ether, following a procedure previously employed by Clowes in the preparation of certain enzymes, yields an anhydrous, sterile, soluble powder which possesses over blood serum the great advantage of being readily available and apparently absolutely stable. Thrombin, or fibrin ferment, the agent which precipitates fibrinogen in the normal process of blood coagulation, is present in this precipitated product in an extremely active form and (probably owing to the complete removal of water) appears to retain its activity indefinitely. Precipitated sera, tested 12 and 18 months after preparation, were found to exert a clotting action on citrated plasma fully equal to that of freshly precipitated sera and superior to that of fresh blood sera, while sera of the same origin, preserved sterile but in a fluid state, exerted practically no clotting effect after three months. The precipitation of serum by this means should not be attempted without adequate laboratory facilities, and owing to the variations exhibited in the behavior of different sera, one or two preliminary experiments should always be made. The product, if properly prepared, settles quickly, and when separated in a dry state dissolves fairly readily in a volume of water less than half that of the original serum. Owing to the nature of the process employed, the precipitated product is absolutely sterile unless subsequently contaminated.

The clinical results obtained with precipitated sera indicate that these preparations are fully as effective as the most active fresh sera. About 150 cases of hæmorrhage have been successfully treated, and in the few cases in which no result was obtained it has generally been possible to demonstrate that a lack of fibrin ferment was not the cause of the persistent hæmorrhage. In the large majority of cases of hæmorrhage of the newborn and hæmophiliacs, gastric and intestinal hæmorrhage, hæmorrhages during and after tubinectomies, tonsillectomies, prostatectomies, etc., one or two doses (each equivalent to 10 cc. of fresh serum) dissolved in sterile water and injected subcutaneously have sufficed to check the bleeding. Repeated doses at intervals of four to eight days have proved of value in certain cases of pulmonary hæmorrhage, apparent cures having been reported after periods of several months. It is interesting to note in this respect that no reactions of an anaphylactic type have been exhibited, even after repeated injections of the precipitated product derived from horse, as well as human and rabbit serum. The increased activity of the fibrin ferment in precipitated serum as compared with fresh fluid serum may possibly be explained on a physicochemical basis.

**McPhedran and Orr: A Case of Hæmolytic Jaundice with Splenomegaly.** *Canad. M. Ass. J.*, 1912, iii, 14. By Surg., Gynec. & Obst.

Minkowski and Bettman described, in 1900, a series of cases of jaundice in which the patients were not affected by the jaundice and which also showed other interesting features, such as enlargement of

the spleen with hyperplasia and hyperæmia; slight enlargement of the liver without pathological change in its parenchyma or bile passages; iron pigment confined to the kidneys and similar to that found in pernicious anæmia; a blood picture of secondary anæmia without nucleated reds, but with polychromatophilia and with a fairly large number of large red cells which were probably quite young red cells, and also leucocytosis.

Minkowski considered that the whole process depended upon a primary lesion in the spleen, that the blood cells were destroyed there, and that jaundice came from increased pigment in the blood stream from destroyed red blood cells.

Chauffard had observed that the red blood cells were not so resistant to hypotonic sodium chloride solutions as were those of the normal individual. He also observed that when a stain such as Unna's polychrome methylene blue were dropped onto the skin and the blood obtained from a prick through the drop, so that the cells might be stained without fixation, many of the cells showed a curious reticular granulation. Vaughn, who first described this finding, thought the presence of so many such cells indicated new blood formation.

The urine contained urobilin but no bile pigments. The stools were normal in color. They often had attacks of gallstone colic, but many were operated upon and no stones were found.

The authors present a detailed study of their one case. It was similar to those described by Minkowski and Bettman.

The spleen is generally thought to be the seat of the trouble, and the authors believe that splenectomy should result in its amelioration.

FLOYD RILEY.

**Geissler: Concerning Blood in the Spinal Fluid** (Ueber Blut in der Spinalflüssigkeit). *Munchen. med. Wchnschr.*, 1913, lx, 121.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The examination of the blood-tinted fluid not uncommonly presents great difficulties when one endeavors to discover the source of the bleeding. Before proceeding to an interpretation of the presence of blood, it is necessary to make sure of an exclusion of artificial hæmorrhage due to puncture of the venous plexus. In artificial hæmorrhages the outflowing liquid loses its discoloration after a few cubic centimeters of it have been shed, and the blood quickly coagulates if the liquid is gathered in a test tube. In pathological infusion of blood, on the other hand, the blood corpuscles are precipitated as a sediment. If the blood in the drained liquid coagulates, and if the fluid drained some time later still remains tinted, we must assume the presence of a fresh pathological hæmorrhage upon which a further artificial hæmorrhage has supervened without, in this case, being of any significance. The following possibilities come into consideration:

1. The presence of blood may be caused by injuries (fractures of the base of the skull) or by inflammatory or neoplastic processes affecting the meninges, provided that there has been a lesion of the arachnoid. Apart from these destructive changes, processes which produce a diminution of the area of the spinal canal and thereby lead to stasis of the liquid in the caudal section may cause hæmorrhage from the congested blood-vessels by diapedesis. Accordingly, as the color of the liquid varies through the scale from deep red to yellow, we may draw approximate conclusions with respect to the age of the blood infusion; a yellowish color will indicate an old hæmorrhage. The degree of color also permits of certain other conclusions, such as whether the hæmorrhage was caused by ulcerative processes (tuberculosis, tumor, lues) or simply by changes that led to physical displacement.

2. A pathological content in the spinal fluid may occur together with one of artificial origin. If the first portion of the liquid drains off slowly, without high pressure, and coagulates more quickly than a later portion which flows out under a steady high pressure, we must assume both pathological blood content and an artificial lesion of the venous plexus.

3. The older the hæmorrhage the yellower will be the tint of the liquid; this is known as xanthochromy, and points to a hæmorrhage that has occurred some time back. It is not necessary to say that weeks must have passed since the occurrence of the hæmorrhage to account for the presence of xanthochromy; in one case it could even be shown that the yellow tint had appeared within one week. Xanthochromy has been observed in connection with hæmorrhages of various etiology, and also in tuberculous meningitis and epilepsy. The change to the yellow tint is the result of modifications in the pigment of the blood, the details of which are still a matter of dispute.

PÓLYA.

**Milne: Anæmia Caused by Hæmorrhage** (Ueber Blutungsanämie). *Deutsche Arch. f. klin. Med.*, 1913, cix, 401.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Artificial hæmorrhage was performed on 24 rabbits and 6 cats in order to determine whether a typical form of anæmia could be produced and to observe whether the regeneration takes on a form other than that in the toxic anæmias as reported by Hanis, Ritz, Morowitz, and Meyer. The hæmorrhages were performed daily or at longer intervals. The hæmoglobin reached the normal more slowly than did the erythrocyte count. Two to three days after the hæmorrhage there were nucleated reds and basophilic erythrocytes present. If the bleeding was stopped for some time, the latter cells would disappear in most cases. The granular basophilic erythrocytes are therefore not characteristic for toxic anæmias. The granulation is probably due to particles of chromatin from the disintegrated nucleus.

When the anæmia was not very pronounced, only scant regeneration of blood elements occurred in liver, spleen, and kidney. In extreme anæmia

(erythrocytes below 2,000,000, hæmoglobin below 30 per cent) lipæmia (4 to 10 per cent) occurred. The fat stained black with ether and osmium. In such cases fatty infiltration of the organs was quite pronounced. The liver showed extreme fatty degeneration and central necrosis, which is probably also due to the insufficient oxidation. Practically all of the characteristics of toxic anæmia can be reproduced by hæmorrhage. SCHLECHT.

**Franke: Hæmophilia and Its Treatment with Rhodalcid** (Ueber Hämophilie und ihre Behandlung mit Rhodalzid). *Deutsche zazhnärztl. Wchnschr.*, 1913, x, 65. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In a case who presented hæmophilia, Franke prescribed rhodalcid to be taken for a week or two, one tablet two to three times a day, before he extracted a tooth. Bleeding after the extraction was slight and of brief duration. Franke then had the patient take rhodalcid for a whole year following. Unpleasant by-effects were not to be observed. On the contrary, the general condition of the patient showed a marked improvement. HERDA.

## BLOOD AND LYMPH VESSELS

**Sabella: Phlebitis in Typhoid Fever** (La flebite nella febbre tifoide). *Morgagni*, 1913, lv, 97. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

This article is a review of our present knowledge concerning post-typhus inflammation of the veins. It is generally accepted that phlebitis is caused by micro-organisms. Opinions differ only on the question as to whether the causal agent is represented by the bacillus Eberthi or by other bacteria, such as bacillus coli, streptococcus, and staphylococcus; or whether, finally, the toxins of these bacteria may not be the cause of the affection. In the author's opinion the bacillus Eberthi must be considered the causal agent of the disease. Phlebitis occurs in the stage of convalescence and generally attacks the left lower extremity, usually the vena femoralis. In addition to the well-known symptoms (fever, pains, rigor, and œdema) some authors mention extravasations into the knee joint and leucocytosis as clinical phenomena. Prognosis, on the whole, is favorable; but chronic œdema of the limb, inflammation of the arteries, and even embolism may appear as complications. Treatment should follow the well-known conservative method; the method of double ligature of the thrombosed vessel which has been proposed by Robineau and Schlesinger, in the author's opinion, has not been sufficiently tested to admit of recommendation at this time. HERHOLD.

**Rohde: A Simple Device for Continuous Intravenous Injection** (Einfacher Apparät zur Erzielung eines gleichmässigen intravenosen Einlaufs). *Ztschr. f. biol. Techn. u. Methodik*, 1913, iii, 85.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author presents an improvement on Kretschmer's apparatus for intravenous injection. By this apparatus it is possible to read off the quantity of solution injected per second. Air pressure is applied on top of the reservoir containing the fluid to be injected. There is an attachment which also gives warning when the flow into the vein is not continuous or has become slower in the rate, thus permitting faulty connections to be easily and quickly corrected. NEUMANN.

## POISONS

**Claypole: On the Classification of the Streptothrices, Particularly in Their Relation to Bacteria.** *J. Exp. Med.*, 1913, xvii, 99.
By Surg., Gynec. & Obst.

Classification and study of the moulds or filamentous fungi are difficult because of the diverse opinion as to nomenclature of both species and genera. Although the matter is not settled botanically, it seems best to adopt the term streptothrix for the genus and streptothricosis for the disease. The various strains show marked differences in cultural characteristics — character of the mycelia, fragmentation, and staining reactions. Some are acid-fast and others are non-acid-fast. It is seen that those forms which show long mycelia and very slight fragmentation are non-acid-fast, and those which are markedly fragmented (bacillary and coccoid fragmentation) and have very short mycelia are acid-fast. This suggests the similarity of the fungi to the bacteria (B. tuberculosis, B. lepræ, etc.) and raises the question whether, indeed, they do not all belong to the one genus. This seems to be borne out by fixation experiments. The author found that the immune serum of the largest branched, non-acid-fast streptothrices gave decreasing fixation with the various antigens as the bacillary and acid-fast forms were approached, failing to fix the antigen of B. tuberculosis. When the immune serum of B. tuberculosis was used, the reverse was true. Hence it would seem biologically reasonable to look upon this group of Streptothrices as representing an ancestral type that gave rise to the higher fungi and to true bacteria, and not as being themselves higher bacteria. JAMES F. CHURCHILL.

**Thiele: The Pathogenicity and Virulence of Bacteria.** *Lancet*, Lond., 1913, clxxxiv, 234.
By Surg., Gynec. & Obst.

In this paper the author describes personally conducted experiments and personal observations, and arrives at the following conclusions:

1. Ferments form an important normal mechanism of defense against bacterial invasion. The ferments performing this important function are: (*a*) The normal panenzyme, (*b*) the slightly differentiated specific enzyme, (*c*) the thermolabile specific coenzyme or amboceptor, and (*d*) the thermostable specific coenzyme or amboceptor. These last two adjuvate and accelerate the action of the ordinary enzyme. The action of the ferment is to bring about proteolytic digestion of the bacteria.

2. Exotoxins and endotoxins are bacterial protoplasm and are not primarily toxic per se, but only become so when acted upon by the ferments.

3. The action of the ferments on the bacterial protoplasm is to produce toxic early proteolytic digestion bodies. These bodies, besides being toxic to the animal, are also aggressive in the sense of Bail, i. e. are antiphagocytic.

4. The action of this toxic substance, besides being aggressive, is to produce (*a*) in large amounts, death; (*b*) in lesser amounts, fall of temperature; and (*c*) in small amounts, fever. This substance is the cause of death in all bacterial infections.

5. The virulence of a bacterium is dependent upon the power of exuding around itself a zone of its cytoplasm, which remains in position and acts as a protective shield. The production of a zone of ferment equilibrium in this shield protects the bacterium itself from the penetration of the ferment. The shield thus acted upon is also aggressive to phagocytosis.

6. Pathogenicity is due to (*a*) the virulence of the bacterium, and (*b*) the relative activity of the ferment to the bacterium. Thus we should say that immunity is due to ferment action and phagocytosis, i. e. it is cellulo-humoral. D. C. Balfour.

## SURGICAL THERAPEUTICS

**Finzi: Experiments with Ionic Medication.** *J. Rönt. Soc.*, 1913, ix, 5. By Surg., Gynec. & Obst.

The author has endeavored to determine experimentally the path various ions take when introduced into living tissue. For this purpose he passed a current of 6 milliamperes for a definite time through pads of cotton wool saturated with the solution containing the ions to be used, which pads were in contact, with the skin of the animals experimented upon. The patch of tissue underlying the pad was then excided and the presence of the ions therein determined by staining and microscopic examination.

In the case of copper and ferric ions it was found that these were deposited almost entirely in the epidermis. Ferro- and ferri-cyanide and ferrous ions penetrated deeply; calcium and probably zinc ions were deposited in and beneath the corium. Attempts to stain with sulphide and metallic ions failed. In the case of hydrogen ions the tissues, penetrated, stained deeply with basic dyes, whereas with hydroxyl ions they failed to do so.

In the course of the experiments it was also ascertained that when the ion penetrated deeply the milliamperemeter showed more current to be passing under precisely the same conditions than if it was deposited superficially. Ferricyanide ions could be shown to have passed into joints such as the knee. Cocain ions were driven in at the anode, but anæsthesia thus produced was found to be very transitory, and was followed in a short time by hyperæsthesia and hyperæmia, and later by a brown pigmentation, rendering its use as a local anæsthetic inadvisable. Adolph Hartung.

**Loeb, Lyon, McClurg, and Sweek: Further Observations on the Treatment of Human Cancer with Intravenous Injections of Colloidal Copper.** *Interst. M. J.*, 1913, xx, 9. By Surg., Gynec. & Obst.

This paper represents a continuation of the study of the clinical effects of colloidal copper on human cancer. The authors have followed in close detail the course of nineteen patients, all afflicted with cancer and all subjected to colloidal copper injections.

The histories which they report confirm essentially their former conclusions. Rapidly growing tumors which lead to extensive metastases in the internal organs, and those in which cachexia is pronounced, cannot be benefited by treatment. In the large majority of all other cases which must be considered inoperable, the continued intravenous injections of colloidal copper lead to a gradual retrogression of the tumor, and in the majority of cases there is noticeable a marked diminution in the pain from which the patient suffers. Furthermore, more recent observations confirm the statement made in their first publication, namely, that in a number of cases there is a gradual decrease in the effect of the injections. This slowing in the progress of retrogression of the tumors became more pronounced the further the work progressed, and in the majority of the older cases it is doubtful whether any progress was made in the last few weeks. In one case, which had retrogressed quite markedly, there was perhaps a further extension of the growth within the last two weeks. It is not improbable that in this case the repeated cuts made into the tumor for the purpose of removal of necrotic material may have stimulated the growth-energy of the cancer. This gradual diminution in the efficiency of the intravenous injections has, however, as yet not become apparent in every case. On the contrary, there were a number of cases in which the healing processes became perhaps more marked after the twentieth injection.

The authors regard as a most important result of their investigations the conclusion that we now have the means at hand to cause a gradual, although only partial, retrogression of the large majority of the inoperable cancers, provided they have not yet progressed to the last stage of the disease. On the other hand, they believe that the action of the intravenous injections of colloidal copper is too slow to render it probable that in the large majority of cases a cure will be accomplished by this mode of treatment. At present it is still too early to make any definite statement as to the ultimate fate of the patients under treatment. M. G. Seelig.

**Loeb, Fleisher, Leighton, and Ischii: The Influence of Intravenous Injections of Various Colloidal Copper Preparations upon Tumors in Mice.** *Interst. M. J.*, 1913, xx, 16. By Surg., Gynec. & Obst.

Hand in hand with the clinical study of the effects of colloidal copper, Loeb and his coworkers

have studied the effect of colloidal copper on mice inoculated with carcinoma. They used four different solutions of colloidal copper, which they designate as solutions A, B, C, and D, and they promise to describe in detail in a future publication the method of preparing these solutions.

In practically all cases in which a strong solution of copper was injected the tumor either did not grow during the period of the injections or growth was much retarded. It was very rare, however, for an actual retrogression to occur, and it was necessary to inject the mice every day in order even to retard growth. If a weak solution of colloidal copper was used it exerted no influence on the tumor. But even when a strong solution was used it was not possible to prolong the effects of the injections after the seventh day. When the injections were stopped the tumor began to grow as rapidly as did an untreated tumor of the same size.

In addition to the experiments with colloidal copper the authors carried out an additional set of experiments, based on the injection of copper casein, the action of which drug is similar to, but more variable than, colloidal copper. The casein preparation does not inhibit the growth of the tumor for as long a period, nor does it check growth as completely as does the colloidal preparation.

M. G. SEELIG.

**Meincke: Chemotherapy of Malignant Tumors** (Die Chemotherapie der malignen Tumoren). *Deutsche Aerzte Zeit.*, 1913, 1.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Wassermann treated mice afflicted with malignant tumors with selenium-eosin, because the salts of this metal and tellurium are quickly reduced by the action of living cells, especially those which are proliferating rapidly. Neuberg used as the basis of his attack the tendency of carcinomatous cells to disintegrate and the property of the heavy metals to increase it. He made organic combinations of the heavy metals. The tumors in mice softened under this treatment and disintegration took place because of the death of the cell nuclei. The great danger in this treatment is that the therapeutic and toxic doses are so nearly identical, and that the body becomes overladen with the toxins set free by the autolyzed tumor cells. The drug can be applied to man only with great caution. RALF LUTZ.

## ELECTROLOGY

**Barclay: The Diagnosis of Gastric and Œsophageal Affections by X-Ray Methods.** *Med. Chronicle*, 1913, lvii, 187. By Surg., Gynec. & Obst.

In this article, X-ray methods, problems, values, and difficulties are pointed out in a manner well classified and easy to follow. Considerable attention is given to motor conditions of the œsophagus, stomach, and duodenum, both in health and in various stages of disease.

Examinations are made in the upright position by the fluoroscopic method in preference to the radiographic, the latter being useful only in recording one or another interesting phase of the formations or actions already viewed. The postero-anterior ray projection is the author's choice for stomach work, and for œsophagus the first oblique position is used. The preferred opaque mixture is bismuth subcarbonate in bread and milk or in porridge.

In the œsophagus the cause and appearance of spasm, obstruction and dilatation in various positions and stages are explained. Although no special attempt is made to furnish exact data by which one or another cause of obstruction can be differentiated, except in case of aneurysm or large new growth, the fact of definitely showing the presence and site of obstruction is considered of great diagnostic importance. As compared with instrumentation the X-ray has many points of advantage. Bougies should not be used where the lower end of the bismuth shadow is not distinctly funnel-shaped.

In the discussion of the radiology of the stomach a sharp line is drawn between atony, which is an intrinsic muscular endowment, and peristalsis, a movement controlled by nerve impulses which, cut off by disease along the nerve trunks, may result in peristaltic absence. The pylorus is regulated by some sensory mechanism in the duodenum, the irritation of which usually produces an abnormal pyloric relaxation. Reverse peristalsis is seldom seen, but when present is considered a sign of gross disease.

The author then treats the subjects of atony and pyloric obstruction and will continue stomach diseases in a later issue. HOLLIS E. POTTER.

**Haudek: The Diagnostic Value of Gastric Antiperistalsis.** *Arch. Röntg. Ray*, 1913, xvii, 312.
By Surg., Gynec. & Obst.

The author introduces the subject of antiperistalsis as a symptom in radiologic diagnosis which has been given particular attention by various authors but one which is still variously interpreted.

Although the earlier observers saw reverse waves so frequently in cases of pyloric obstructions as to associate them diagnostically, a close review of a long list of cases of antiperistalsis with subsequent operation showed enough of them free from organic disease of the pylorus to warrant us at present to place a broader interpretation on this finding. Among the conditions referred to were the gastric crises of tabes in which no organic disease of the stomach was suspected, ulcers of the stomach at some distance from the pylorus not involving the pylorus except by spasm, and even duodenal obstructions with pylorus patent. The existence of antiperistaltic waves may therefore be due to disease of the wall of the stomach or duodenum with or without spasm of the pylorus.

Certain experiments are cited which would substantiate this interpretation aside from the confirmation of operated cases. The stomach wall stimulat-

ed mechanically or chemically at some little distance from the pylorus has repeatedly been followed by antiperistalsis.

However, considerable emphasis is laid upon the value of this symptom as a general evidence of organic disease, since it may be the only radiologic sign present in a given case.

The author concludes thus broadly:

1. Gastric antiperistalsis is a sign of some organic alteration in the walls of the stomach or duodenum.

2. Antiperistalsis is most frequently met with in pyloric stenosis, but is not an invariable concomitant of stenosis.

3. Antiperistalsis is only recognizable when the waves of contraction are of a certain amplitude; hence it is rendered more visible by any stimulus which will increase the depth of any peristalsis.

HOLLIS E. POTTER.

**Linnell: A New Technique for X-Ray Therapy.** *N. Am. J. Homœop.*, 1913, xxviii, 24.

By Surg., Gynec. & Obst.

The author ascribes a dual therapeutic action to the X-ray — a destructive one associated with a passive hyperæmia when applied continuously for a given length of time during a series of exposures, and a stimulating and regenerative one with an active hyperæmia, if given intermittently or in flashes of longer or shorter duration and varying frequency.

This latter method, originated by Finlay R. Cook, has been used with success by the author in a variety of local and general conditions where tonic effects were desired. Amongst the conditions benefited are mentioned anæmia, neuræsthenia, arterial hypertension, incipient arteriosclerosis, and a number of eye and ear affections.

**Crotti: The Röntgen Ray in Intrathoracic Goiter and Thymus Hyperplasia.** *J. Am. M. Ass.*, 1913, lx, 117. By Surg., Gynec. & Obst.

Consideration is given mainly to those goiters the greater part of which lie within the mediastinum or which have intrathoracic prolongations large enough to cause symptoms. These may extend downward from the median line or from either side and compress the trachea from the front or side.

In the dorsoventral skiagram their outline can be readily traced, the parts in juxtaposition to lung tissue showing especially clear contours. Ordinarily, they cast smooth convex shadows; irregularity usually denotes malignancy. Where they press upon the trachea, this is usually evidenced by displacement of the tracheal shadow or by encroachment upon its lumen. Fluoroscopy should supplement radiography, as small goiters, which might escape detection owing to their position, may thus be discovered during the respiratory movements. Likewise, aneurysm shadows which occasionally closely resemble goiter shadows can be readily differentiated by this method.

Close examination of several operative goiter cases, which the author cites in detail, revealed hyperplastic thymus glands in the mediastinal space. Examination of skiagraphs of these cases, as well as of others previously taken, gave findings of sufficient uniformity to be of diagnostic value in this condition. A rather thin triangular shadow, superimposed upon the base of the heart like a cap and having sharp linear edges, is sufficiently characteristic to suspect an enlarged thymus. In view of the high mortality rate of these cases when operated upon, the author recommends a preliminary course of treatment by the X-ray to reduce its size.

ADOLPH HARTUNG.

**Von Noorden: Radium and Thorium-X Therapy.** *Med. Rec.*, 1913, lxxxiii, 95.

By Surg., Gynec. & Obst.

Radium or radium emanation and thorium-X as therapeutic agents have been selected from a group of radioactive substances as being best adapted to meet the requirements of practical therapy. Their action is described as essentially an electrization of the protoplasmic constituents of the organism inasmuch as radioactive substances disintegrate explosively, and in so doing set free energy, electrical in nature.

The various methods of application which have been used are baths, inhalations, drinking, injections, and compresses, or combinations of the above. As regards their biologic activities, it was found that they increased the metabolism of fats, carbohydrates and albumen in the body, and also favored the excretion of uric acid in a high degree. Likewise they were found capable of producing marked changes in the blood and blood-forming organs.

Among the conditions favorably influenced by their use are mentioned endogenous obesity, gout, subacute and chronic arthritides (especially arthritis deformans), myalgias and neuralgias, commencing arteriosclerosis, arterial hypertension, pernicious anæmia, leukemia, insomnia and nervous overexcitability, and sexual impotency.

The contraindications to their use are cardiac weakness, cachexia, senile marasmus, Basedow's disease, diabetes, febrile conditions, hæmorrhagic diathesis, severe neurasthenia, and far advanced erythroblastic and leucoblastic conditions.

As regards dosage, there is as yet little uniformity. Thorium-X especially, given by the drinking or injection method, is apt to produce marked variation of action with comparatively small changes in the amount used, and great caution must be exercised in employing it. A combination of baths, drinking, and inhalation, as used at different sanitaria in Europe, is probably the method of choice at present in all but in blood diseases, where thorium-X is preferable. Inhalations alone, as used in the various emanatoria, are of less value, and the injection of radium salt solutions are rendered impracticable owing to the prohibitive cost.

ADOLPH HARTUNG.

# GYNECOLOGY

## UTERUS

**Boldt: Cancer of the Uterus.** *N. Y. M. J.*, 1913, xcvii, 8. By Surg., Gynec. & Obst.

The author claims that the vaginal operation, particularly by the method generally used, gives a much lower primary mortality than the extensive abdominal operation; but when the disease has its origin in the cervix, even though it is still seemingly in the beginning stage, the percentage of recurrences is very large.

The vaginal operation has a field of usefulness, but the indication for it should be limited to women who are very obese, to the very early stages of epithelioma of the vaginal part of the cervix, and to cancer of the body of the uterus. Particularly should preference be given to the vaginal operation in the cases mentioned if the patient's age be past fifty years, since at that age and beyond it the disease is not so likely to have affected the glands. If the vaginal operation be done, the method practiced by Schauta of Vienna should be that of choice.

The features of importance are: An extensive paravaginal section must be made, extending about 2 to 3 cm. behind the anus. This gives an adequate approach to the field of work. The vaginal cuff, which is next made, should take in the upper third of the vagina. The bladder must be well pushed off, care being given to its lateral attachments, so that the ureters can be fully exposed to permit tying of the uterine arteries outside of them.

Since, however, the abdominal route permits a more extensive extirpation of the parametria, besides giving a better view of the field of work, and since it permits the extirpation of enlarged glands, it is obvious that the extensive abdominal operation should be the method of choice, only excluding the class of cases previously mentioned.

**Cragin: Report of a Case of Carcinoma of the Uterus in a Girl 18 Years of Age.** *Am. J. Obst.*, N. Y., 1913, lxvii, 114. By Surg., Gynec. & Obst.

A patient 18 years of age, who for several months had menorrhagia, which responded to medication and general measures, was found to have a cauliflower-like tumor of the cervix, which on microscopic examination proved to be a carcinoma. A radical abdominal operation was performed, and the patient has showed no recurrence six months after the operation. N. Sproat Heaney.

**Vautrin and Hoch: Chorio-Epithelioma and Hydatiform Mole** (Chorio-épithéliom et mole hydatiforme). *Bull. d. Soc. d' Obst. e. d. Gynéc. d' Nancy*, 1912, No. 8, 940 By Journal de Chirurgie.

In this case, the explusion of hydatiform mole was followed several months later by a discharge, to which the patient paid no heed. When the case was seen ten months later there was emaciation, fever, rapid pulse, and a large and very soft uterus. The history led to the diagnosis of a malignant tumor of placental origin, and laparotomy was performed. The uterus was very soft, almost diffluent; it was covered with a serous exudate. The omentum was adherent to the fundus, thus covering over a neoplastic nodule which was continuous with a grayish mass that had partially herniated through the uterine wall. Another tumor nodule lay close to the pelvic colon. This was excised and a hysterectomy performed. Care was necessary on account of the friability of the uterus. The patient recovered.

When the uterus was opened a grayish tumor was found, which formed a shaggy lining of the entire wall. The uterus was distended by this tumor, which at certain points perforated the uterine musculature. Microscopic examination showed numerous necrotic foci in the tumor. The infiltrating element was composed of elongated and fusiform giant cells. The nuclei were large and in some cases multiple. Certain of the cells were of plasmodial reticulated type, with numerous nuclei. These syncytial cells formed a network about vascular lacunæ which had no other walls, and infiltrated, disintegrated, and destroyed the normal tissues of the uterine wall.

This form of chorio-epithelioma should be classed among the type usually called syncytioma, since the section showed no cells resembling the cells of Langhans layer. The further history of this case was lacking. The uterine perforation and metastatic nodules made the prognosis unfavorable. Earlier diagnosis and operation might have allowed of a better prognosis. L. Chevrier.

**Sadlier: Some Complications of Urine Fibroids Commanding Early Diagnosis and Immediate Operation.** *Am. J. Obst.*, N. Y., 1913, lxvii, 87. By Surg., Gynec. & Obst.

Sadlier reports the following cases: (*a*) Rupture of blood-vessels in a fibroid. A woman 25 years of age who had been entirely well until menorrhagia appeared two years ago, was suddenly and acutely taken ill with pain, nausea, and faintness and with symptoms indicative of intra-abdominal hæmorrhage. She was treated expectantly for eight hours, after which operation was performed. An artery, still bleeding, at the summit of one of the many small fibroids of a multiple fibromyoma of the uterus was revealed. Supravaginal hysterectomy was followed by recovery. (*b*) Suppuration of a fibroid. A frail woman of 60 years who had not menstruated for ten years, noticed a swelling above

the pubis which, under the symptoms of chills and fever, rapidly grew to the level of the umbilicus within a period of ten days. The shape simulated markedly a pregnant uterus. A supravaginal removal of the non-adherent uterus revealed that a cavity holding 2,000 cc. of pus had formed at the side of the fibroid on the posterior wall. (*c*) Necrosis of a fibroid. A patient, 45 years of age, who had of late years had menorrhagia, had an amenorrhœa appear, for the relief of which, under the supposition that she was pregnant, she dosed herself. Soon afterwards she was seized with violent pain in the pelvis. This was followed by a hæmorrhage, and later, evidence of peritonitis with effusion appeared. Operation revealed a subperitoneal fibroid of the uterus, which had undergone a necrosis, due, Sadlier suggests, to circulatory disturbances produced by an emmenagogue. N. Sproat Heaney.

**Strassmann: The X-ray Treatment of Uterine Fibroids** (Zur Verwendung der Röntgenstrahlen für die Behandlung der Myome des Uterus). *Therap. d. Gegenwart.*, 1913, liv, 24.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The object of local X-ray treatment in uterine fibroids is to cause a cessation of menstruation, to produce castration, and atrophy of the uterus. Not all cases can be successfully treated; those where the fibroid projects into the uterine cavity are better treated with the knife. Painful myomata or tumors compressing the bladder or intestine had better be operated. The technique of the treatment is as follows: 80 to 100 light minutes are applied locally for five to six treatments, followed by a rest of 3 to 4 weeks, and if no contraindication has developed, continued as before. The action on the skin should be carefully watched, as sometimes late injury is seen there. Women who are anæmic from the loss of blood should be observed carefully, for not infrequently a threatening hæmorrhage occurs after the X-ray treatment has begun. The knife cannot be dispensed with entirely in the treatment of fibroids. Lohfeldt.

**Schauta: The Modern Treatment of Myomata** (Ueber moderne Myombehandlung). *Wien. med. Wchnschr.*, 1913, lxiii, 13.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Schauta declines the conservative vaginal or abdominal enucleation of myomata, because of the danger of recurrence (14 per cent) as well as the greater operative danger and the negative results as to subsequent pregnancy. He prefers the abdominal route with the transverse fascial incision, though for small tumors the vaginal method has some advantages. Supravaginal amputation is rather to be commended than total extirpation, yet he acknowledges and emphasizes the danger of malignancy in the stump. An ovary left behind is not highly valued, since without the correlation of the uterus its activity soon ceases. With reference to the indications for radical treatment, the author lays stress upon the importance of recent research as regards malignant (sarcomatous) degeneration of the fibroids, also pointing out the frequent combination of myoma and corpus carcinoma (10 per cent). Besides that, there is the danger of endocarditis, myocarditis, crown atrophy, and necrosis and thrombosis of the vessels. The so-called benign myoma is viewed very skeptically. Because of their slight value, abrasion and ergotin treatment are merely touched upon. In large part the article is devoted to treatment with the X-ray. Schauta regards the effect thus produced as a bloodless castration, a procedure free from danger and causing less decomposition resorption, probably because the generative function of the ovary only is destroyed, the interstitial portion, producing the inner secretion, being conserved. Contraindications to X-ray treatment conform with those of Klein. The author's own results following the method of Albers-Schönberg, are not very encouraging. Only with the gynecologist as diagnostician should the Röntgenologist be allowed to expose myomata to the rays. Schauta looks upon X-ray therapy as a welcome supplement, a help in need, and is convinced that radical extirpation is still the safest procedure for the present and for the future. Flatau.

**Goullioud: Treatment of Uterine Malformation by Laparotomy** (Du traitement des transformations utérines justiciables de la laparotomie). *Ann. d. Gynéc. et d'Obst.*, 1912, ix, 593, 691 and 726.

By Journal de Chirurgie.

After a brief discussion of the anatomy of uterine malformations, the author takes up the disturbed functions of the uterus. From a study of the latter, the general statement is made that in most all bicornuate uteri the incomplete drainage plays an important rôle in the symptoms. He divides his article into four heads:

1. *Painful rudimentary uterus without hæmorrhage.* The two symptoms are amenorrhœa and pain. The displaced uterus is full and the uterine cavity is obliterated or absent. The pains are sufficient indications for surgical treatment. A hysterectomy with drainage is done.

2. *Uterus with rudimentary cornu.* The rudimentary cornu with a cavity filled with blood gives a lateral tumor clinging to the uterus, which can easily be mistaken for a fibroma or salpingitis. The pains are ordinarily sharp. It is pedunculated and resection is done through the pedicle. If it is sessile, more conservative treatment is used, such as a myomectomy. If it is embedded in the surrounding structures it is to be extirpated along with the adnexa on that side.

3. *Double uterus.* Hysterectomy of one half is the ideal operation for this condition, removing the adnexa as in hæmatosalpinx, and when unavoidable, marsupialize. When the two uterine cavities cannot be easily separated a total hysterectomy is done by the abdominal route. In certain cases a unilateral salpingectomy is possible with the incision

of the hæmatometrix through the vagina. In cases where the general condition of the patient will not permit a hysterectomy, a bilateral salpingectomy must suffice. In rare cases, a simple vaginal operation might be considered with puncture or incision of the hæmatometrix. The suppuration of the pouch is an absolute indication for puncture.

4. *Imperforate cervix or isthmus with only one ureter.* The functional symptoms are always pain and amenorrhœa. Different types exist upon the basis of physical examination: imperforate uterine isthmus with a contracted uterus, under 3 or 4 cm.; imperforate cervical canal with cicatrization; imperforate external os with impermeable but distended cervix, since it is connected with the hæmatometrix; imperforate cervix with rudimentary development of the vagina.

In discussing the treatment of the conditions mentioned above, the author makes the following classification:

(*a*) Imperforate uterine isthmus. The ideal operation in this case is tracheostomy, following the well-perfected technique of the author. Make an abdominal hysterotomy, opening the fundus and cervix and resecting the bicuneiform fibrous isthmus; suture the two lateral lips, and close the uterus; abdominal drain.

(*b*) Imperforate cervix replaced by fibrous tissue. The operation advised here is a vaginal hystero-clystrostomy with a laparotomy to find out the exact state of the adnexa. The vaginal operation may be done in different ways: a simple puncture with a trochar or scalpel through the fibrous tissue; puncture of the hæmatoma without paying attention to the fibrous cervix, and suturing the opening of the vagina; resection of the cervix and suturing of the uterus to the vaginal muscle. The latter is the technique perfected by the author.

(*c*) Complete separation of uterus and vagina. Different methods of procedure have been devised. Backward displacement of the uterus and making a fistulous opening between the vagina and uterine fundus (Halbaw). After having begun the loosening of the uterus through the vagina, Hofmeier continues by the abdominal route. He opens the inferior pole of the uterus, passes ligatures through the uterus, then pulls them through the vagina. Hysterectomy is indicated at times, and must be considered when the adnexa render the more simple procedures impossible.

Pathology of double uteri aside from the hæmatometrix. We can find, with normal or hæmorrgahic uteri, salpingitis, benign or malignant tumors, and painful retroversions. These lesions should be treated in the customary manner, remembering that we are dealing with two cavities, and that each should be treated individually and with the least possible mutilation.

*Operative technique.* With reference to the technique, we must remember that on each side there is but one uterine artery and that the broad ligament is absent. There is one ligament more or less thickened, the vesico-rectal, which is often walled off and must be loosened with care. The existence of this band is a strong argument in favor of the abdominal route for all radical operations. There often exist malformations of the urinary organs such as rudimentary ureters and kidneys, and these are at times abnormally situated. More important is the fact that the ureters can be more carefully watched.

The general conclusion of the author is that we must apply the best methods for each individual case, being guided by the lesions present; remembering all the while that conservatism is better than too radical procedures in many cases.

L. Chevrier.

**Barrows: The Surgical Treatment of Prolapse of the Uterus.** *N. Y. St. J. M.*, 1913, xiii, 32.

By Surg., Gynec. & Obst.

The treatment of uterine prolapse, advocated by the author, is based upon the interpretation of the condition as a hernia of the uterus, with its attached bladder and rectum, due to a relaxation of the upper pelvic floor. Mindful of the importance of preserving the vascular and nervous supply of the upper pelvic floor so as to prevent further relaxation of the structures, as emphasized by Professor Polk, the author adopted a combined surgical procedure which has given satisfaction in the majority of the cases. Cures are reported on the hospital records of a large number of patients, and five cases from his private practice illustrating the range of indications of the method are also quoted in support of the author's argument.

The operation consists of the following stages, all to be done at one sitting: (1) Amputation of the cervix uteri; (2) anterior colporrhaphy; (3) repair of the torn or relaxed perineum by the flap-splitting method, with approximation of the separated perineal muscles and fascia, together with shortening of the round ligaments by Alexander's method. This mode of shortening the round ligaments is regarded by the author as the most important part of the procedure. The direction of the uterine axis is improved and the cervix is made to impinge upon the posterior vaginal wall above the restored perineal body instead of following the axis of the vaginal canal.

The method is especially suitable for the relief of uterine prolapse in fleshy patients whose abdominal walls it is desirable not to injure, and in cases of comparatively rapid prolapse in young women as a sequel to extensive laceration of the perineum. A permanent cure is to be expected in properly selected cases, after a short period of rest in bed (usually two weeks), with no danger to life and very little subjective discomfort.

In cases in which no objection to opening the peritoneal cavity obtains, Polk's operation for tightening up the upper pelvic floor promises the best results. This consists in plicating the vaginal wall at its junction with the uterus by bringing it

together from side to side in front of the cervix, the bladder having been previously separated and pushed forward. Three kangaroo tendon sutures are sufficient for this. The uterosacral and round ligaments are then shortened.

The efficiency of the procedure is illustrated by the results obtained in 16 patients of Polk and 3 personal operations of the author, in all of whom the prolapse was apparently cured absolutely, without complication of any kind or discomfort to the patient. Two of the last mentioned cases, of more than two years' standing, are well and free from any disturbance at the time of the report.

## ADNEXAL AND PERIUTERINE CONDITIONS

**Jones: Etiology, Pathology, and Treatment of Ovarian Cysts in Relation to Child-Bearing, with Special Reference to Hæmorrhage into the Cysts.** *Surg., Gynec. & Obst.*, 1912, xvi, 63.

By Surg., Gynec. & Obst.

In the case reported, a marked enlargement of the abdomen appeared within a few minutes after a normal labor following a normal pregnancy. Rapid increase in size continued until the fifth week, when the writer was called in consultation. A diagnosis of probable ovarian cyst was made and a laparotomy was performed by him. The growth proved to be a multilocular cyst of the left ovary, which was very adherent to the abdominal wall, bladder, omentum, and intestines. It was composed of one large cavity holding about 5½ litres and four other relatively very small loculi. The contents consisted of chocolate-colored (hæmorrhagic) fluid and there was abundant hæmorrhagic infiltration of the cyst walls. The sudden enlargement following delivery probably was due, in large measure at least, to hæmorrhage into the cyst, which was caused by lessened intracystic tension following the sudden increase of intrapelvic space, due, in turn, to the sudden emptying of the uterus.

A consideration of this case, together with a review of the literature upon this subject, leads to the following conclusions:

1. *Etiology and pathology.* Ovarian cysts almost always produce serious trouble sooner or later, and especially during pregnancy, labor, and the puerperium. The most dangerous period is the puerperium. Torsion of the pedicle is the most common accident, with its resultant hæmorrhage, gangrene, and infection. The most frequent result of twisted pedicle is hæmorrhage, which occurs in about 50 per cent of all cases of torsion.

2. *Treatment.* The tendency of ovarian tumors is almost always to increase in size more or less, and also sooner or later to undergo torsion, hæmorrhage, gangrene, infection, or malignant degeneration. Hence, in general, these cysts should be removed as soon as possible after they are discovered. One should usually be particularly careful not to let a woman pass into the puerperium without first ridding her of the cyst.

Most clinicians maintain that an ovarian tumor in most cases should be removed as soon as it is found. Exception may be made to this rule in case the tumor is not discovered till after the fifth or the sixth month of pregnancy. One then frequently is justified in waiting till the child is viable.

As to the choice of treatment, there usually is no room for doubt. So-called expectant treatment in most cases amounts to practically no treatment at all. Aspiration has a very high mortality. Obstetrical operations have an enormous mortality, unless the obstructing tumor is removed before they are undertaken. Ovariotomy (usually abdominal) has a mortality far less than any other procedure (less than 5 per cent of all cases). Cæsarean section, if undertaken early, is an excellent procedure in certain cases. The author concludes with the words of McKerron, which are more pertinent today than they were nearly ten years ago, when he wrote them: "All the available evidence points to the advisability of early operation" (ovariotomy).

**Seedorff: Hæmatoma of the Ovary; Its Origin and Clinical Significance** (Hæmatoma ovari; dets Fremkomst og kliniske Betydning). *Hosp.-Tid.* 1913, lvi, 73.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author, as Hendley and Savage have done before, tried to differentiate a group of ovarian cysts from hæmorrhagic ovarian cysts which consist of larger cysts with a bloody content and are characterized by a special formation and a special etiology. The size of the cysts examined varies from a walnut to an orange but may be considerably larger. The inner surface is not smooth but is covered with a network of strands which here and there appear as trabeculæ. Between these lies the content of the cysts, which is usually a bloody mucoid mass. Inoculation with this substance always gives a negative result. The ovarian tissue may be entirely atrophic. In 2 cases out of 7 which the author examined more carefully he found numbers of lutein cells, and in the remaining 5 there were cells which looked like those seen in older corpora lutea. Based on these findings, Seedorff's conclusion is that these tumors form a separate group, and he thinks they are old corpus luteum hæmatoma. The folds of the wall lead one to think of the well-known folds of the corpus luteum. In hæmorrhage into the cavity these can be gradually wiped out. They occur bilaterally, and their course is chronic. The symptoms are little characteristic, and the diagnosis can therefore be made only with more or less probability. In none of the cases referred to was a diagnosis positively made. The treatment is like that of salpingitis. Since the condition cannot always be treated conservatively, there will be a number of cases in which operation is necessary; and furthermore, since younger persons are often affected, one should be as conservative as possible during the operation. Histories of 25 cases are added.

S. A. Gammeltoft.

**Meyer and Ruge II: Relationship of the Time of Corpus Luteum Formation and Menstruation** (Ueber Corpus luteum-Bildung und Menstruation in ihrer zeitlichen Zusammengehörigkeit). *Zentralbl. f. Gynäk.*, 1913, xxxvii, 50.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Basing their conclusions on a study of 82 cases, the authors determined a relationship between the time of ovulation and menstruation. In the 28-day cycle of menstruation the ripening of the follicle probably comes after menstruation, on about the eighth day from its beginning, if not during the time of menstruation itself. The beginning of lutein formation is the second week; then the hæmorrhage follows in the second half of the third and in the fourth week. The height of the hæmorrhage is immediately preceding menstruation. During the latter, regression begins and lasts about 14 days. The normal sequence is then as follows: first, the hyperæmic stage of the corpus luteum during the interval; the stage of vascularization of the corpus luteum at the beginning of the premenstrual phase; hæmorrhage of the corpus luteum in the advanced premenstrual phase; the high point of hæmorrhage of the mucosa and of the corpus luteum shortly before menstruation; and the regression during and after the same. During pregnancy the corpus luteum remains at the high point of its hæmorrhagic state. P. SCHAEFER.

## VAGINA

**Stratz: Three Cases of Vaginal Tumors** (Drei Fälle von Vaginaltumoren). *Gynäk. Rundschau*, 1913, vii, 1.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author reports three interesting tumors of the vagina. One case is that of a walnut-sized fibroma, above which the uterus lay in retroflexion. The dislocation of the uterus disappeared after removal of the tumor. The second case consists in a cyst behind the urethral orifice lined with one layer of epithelium and containing cholesterin, dysuria being the symptom complained of. Uterus duplex was found above, and in view of this anomaly the origin of the cyst is probably an embryonic epithelial inclusion in the development of the urogenital sinus. The symptoms disappeared after the removal of the cyst. The third and last case was that of a woman who had been operated upon several times for urinary incontinence, and where dystopia of the urethra and a paraffin mass resulting from an earlier operation were found. After removal of the tumor and plastic repair of the urethral orifice this patient was dismissed entirely cured. BENTHIN.

**Römer: A Case of Hæmatoma of the Vagina and Vulva, with Subsequent Death from Hæmorrhage** (Ein Fall von Hämatoma vaginæ et vulvæ, mit nachfolgendem Verblutungstod). *Zentralbl. f. Gynäk.*, 1913, xxxviii, 131

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Following a spontaneous delivery in a 23-year-old bipara, a hæmatoma developed in the vulva and vagina the size of a child's head, which separated the entire posterior wall of the vagina from the rectum as high up as the uterus. During the transportation of the patient to the clinic the blood tumor broke and an enormous hæmorrhage took place, approximately two liters. A few hours after admission the patient died in collapse. The author regards the rupture of the larger vessels in the paravaginal connective tissue, produced by the pressure of the head on the promontory, as the cause of the hæmatoma. JAEGER.

**Rubin and Leopold: The Cause of the Persistence of Gonorrhœal Vulvovaginitis in Children.** *Am. J. Dis. Child.*, 1913, v, 58.

By Surg., Gynec. & Obst.

After remarking on the chronicity of this infection, the authors report their examinations. For the purpose of determining the location of the affection, a female urethroscope was used. By this means they were able to determine that the vagina was affected in practically all cases, and also that the cervix of the uterus was involved in the same way. Accompanying the article is a very exact description of the cervix uteri as found in infants and young children. Being satisfied that none of the treatments heretofore employed were adequate, the authors tried, by injection through the urethroscope, an antigonococcus serum, without any results whatever.

In the treatment they make the following suggestions: 1. It is important to determine the extent of the deep lesion before any active treatment is begun. For this purpose the electric-lighted female urethroscope should be employed. 2. By means of the same instrument appropriate medication can be carried out. 3. When irrigations are resorted to, the douche tip or catheter should enter the vagina at least 1½ inches. 4. Applications by means of swabs used alone are useless and injurious. 5. When strong silver solutions are applied to the cervix and vagina, it is well to keep the patient in bed for a few days.

The authors draw the following conclusions:

1. The invasion is more violent and more extensive owing to (*a*) the close proximity of the portals of entry; (*b*) the tender mucosa and epidermis.

2. Once started, the infection practically develops as in a closed tube. This is not due to the valve-like closure made by the hymen, but to the construction of the perineum and the external genitals. Each segment of the vagina, from the most superficial to the deepest part, serves as a valve to dam back the discharge. This is due to the fact that the vaginal walls are in close contact and do not permit of natural and easy drainage.

3. Crypts and adhesions in which bacteria lodge form in the vaginal mucosa.

4. The vaginal portion of the cervix shows the deepest changes, and is at the same time in the most disadvantageous position for drainage and treatment. C. G. GRULEE.

**Penkert: Recurrent Menstrual Diphtheria of the Vulva** (Rezidivierende menstruelle Vulvadiphtherie). *Med. Klin.*, 1913, ix, 100.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Stratz reports a case of genuine diphtheria of the vulva in a woman 43 years of age, secondary to a cold of more than 3 years' standing. Each month, shortly before and during menstruation, the symptoms tended to flare up, both the throat and the vulva becoming membranous. The patient was variously treated for gonorrhœa and lues. On both sides of the vulva yellowish gray membranes were found, closely adherent to the surface and bleeding slightly when loosened. The bacteriologic examination showed diphtheria bacilli. Upon injection with Merck's antitoxin the bacilli could no longer be recovered and the membranes in the throat disappeared. The vulvar membranes, however, were only removed by local treatment with pyocyanasis.

BENTHIN.

**Ehrl: Therapy of Gonorrhœa** (Zur Therapie der Gonorrhöe). *Wien. med. Wchnschr.*, 1913, lxiii, 274.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

By bacteriologic proof only can urethritis be looked upon as gonorrhœal. In every case the treatment should be individual. Ehrl emphasizes the importance of internal therapy with disinfectants, thus supporting the natural prophylactic forces. Such a remedy he has found in arhovin, which produces no secondary effects even when used for some time. All subjective disturbances disappear promptly, as do the objective often after a few days.

WEICHSEL.

## MISCELLANEOUS

**Stefko: The Action of Adrenalin on the Ovaries and Uterus of Some Mammalia** (Adrenalin und seine Entwirkung auf die Ovarien und den Uterus einiger Mammalia). *Fortschr. d. Med.*, 1913, xxxi, 67.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author gives a summary of the literature on the relation of the adrenal and sexual glands. Emesis gravidarum is cured by adrenalin. Stefko fed .2 to .6 cc. of a 1:1000 solution of adrenalin hydrochloride to rabbits and examined the animals on the eighth day. There was a loss of 30 to 50 gm in weight, the uterine horns were blue, and examination of the ovaries microscopically revealed an absence of chromatin in the germinal vesicles. The urine contained albumin and the adrenalin reaction was positive. The author concludes that internal secretions from the ductless glands plays a rôle in sex determination.

HAPPICH.

**Gemmell and Paterson: Duplication of Bladder, Uterus, Vagina and Vulva, with Successive Full Time Pregnancy and Labor in Each Uterus.** *J. Obst. & Gynec. Brit. Emp.*, 1913, xxiii, 25. By Surg., Gynec. & Obst.

The patient, in whom this anomaly was discovered, was a woman of medium height and well nourished. Her general configuration was normal except that the umbilicus was absent and the pelvis was enormously wide. The distance between the anterior superior spines was eleven inches. There was no symphysis pubis nor mons veneris, the distance between the two pubic bones being 5⅞ inches. Two separate vaginæ and two uteri were demonstrable. Between the thighs a perineal space of 4 inches was formed. The curve of the sacrum and coccyx and their relation to the spine of the ischium on the left side rendered the left half of the pelvis almost normal. Behind the left vulva was a single anus. The vulvæ were normal in size and form. Labia majora were present, with labia minora, clitoris, vestibule and the opening of a urethra for each vagina. A well formed cervix and corpus was palpable bimanually through each vagina. These were freely movable and independent of one another. A single ovary could be felt at the outer side of each uterus. The urethræ were apparently normal. Urine may be withdrawn by catheter through either. After injecting collargol through each, two separate and distinct bladders were demonstrated on the X-ray screen.

An area anterior to and between the two vulvæ was devoid of hair or sweat glands. Through this a hole was palpated. The authors suggest that this represents the umbilical area and propose by way of explanation that there has been no allantois or umbilical cord; that the fœtal belly-wall was in contact with the placenta and that at birth the orifice was ligatured.

Obstetrically, the patient was first seen in April, 1910, in labor, the fœtal head presenting at the right vulva. The only mechanism present was that of descent, so that the posterior vaginal wall was pushed against the gluteo-perineal tissue, stretching and thinning out the structures forming the right perineum, a false one as opposed to the real one on the left side. An incision was made through the right lip of the vulva, downwards and to the right, to a distance of three inches, and the child was easily extracted. A second labor two years later terminated spontaneously. In this instance the child occupied the left uterus and was born through the left vulva, the more perfect bony framework of the pelvis on this side compelling a normal mechanism of labor.

CAREY CULBERTSON.

**Bossi: Psychopathy in Diseases of the Ovaries and Uterus** (Eierstocks-Uterus-krankheiten und Psychopathien). *Beitr. z. Geburtsh. u. Gynäk.*, 1913, xviii, 136.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Bossi again strongly advocates his theory, that many psychopathies take their origin in gynecological diseases and that they disappear finally when the affliction is cured. Most frequent are mental disorders in chronic endometritis with stasis of pus in the uterine cavity. The diagnosis of the mental disease is unimportant, the conspicuous symptoms only being of value, such as melancholia, over-

irritability, paroxysms of rage, inclination to suicide, etc. The same gynecological disease may cause the most varying psychopathic symptoms, according to the individual constitution. The danger of a mental disease is especially great in neuropathic women and here by way of prophylaxis the closest attention must be given to the cure of the endometritis and cervical catarrh. When the psychic affliction is first established the gynecologic treatment is very difficult, and such patients should be cared for in the clinic before they are sent to an insane asylum. Likewise, in neuropathic men the closest attention should be given to the cure of any somatic trouble in order to prevent mental disorders.

Bossi energetically repudiates the accusation of exaggerating, and to demonstrate the correctness of his theory he enumerates many quite conspicuous cases which have been published, and cites two cases in detail. One of these women had been placed in an insane hospital for dementia præcox and became completely normal after the cure of the gynecologic disorder — cervicitis, endometritis, and retrodeviation of the uterus. The other patient had the same pelvic condition and was cured of her mental disorder and chora by a gynecologic operation, thus being saved from the asylum. Both women returned to their families, became pregnant, and gave birth to healthy children, and are now, 14 months after their trouble, physically and mentally well.

In the discussion Genta approves of Bossi's theory, and reports two cases of mental disorders based upon ear diseases which disappeared after the cure of the latter. Maragliano and Varaldo report cases in which psychic diseases disappeared after the cure of prostatitis and after extirpation of an ovarian sarcoma. Oliva, Pastine and Bassoni advocate the recognition of certain clinically well defined psychiatric diseases on a definite anatomical basis. Oliva advises consultation with a gynecologist in mental diseases, provided the patient be handed over again to the psychiatrist after the pelvic trouble has been removed. RUHEMANN.

**Cohn: The Relation Between Breast and Ovary, with Respect to the Internal Secretion** (Die innersekretorischen Beziehungen zwischen Mamma und Ovarium). *Monatschr. f. Geburtsh. u. Gynäk.*, 1913, xxxvii, 03.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The relation between the mammary gland (the nipple excluded) and the genitalia finds explanation in the influence of a hormone, according to the results of transplantation experiments. The source of the hormone was looked for in the ovary, but as to its existence there is great uncertainty. The relations became clearer when the influence of the ovary upon the development of the breast is kept separate from that exerted upon its function. Ovarian influence upon mammary development exists, without doubt. As yet there has been no definite research, during the embryonal period, as to whether elementary influences, if indeed they originate in the mother at all, come from the maternal ovaries or not. Observations on children whose mothers have both ovaries extirpated during pregnancy would be of importance, but these are thus far missing, as are results from animal experimentation. The direct influence of the ovary is apparent from castration experiments during puberty.

Against the possible theory that this influence takes its course indirectly over the atrophied uterus, Cohn cites a case in which ovaries and mammæ were well developed in spite of a congenital defect of the uterus. The mammary gland remains small only when the genital atrophy involves the ovaries. In such a case Cramer has effected menstruation and a better development of the breast by implanting the ovary from an osteomalacic woman. That the ovarian influence causes the swelling of the mammary gland during menstruation is very likely, proof of which, however, is yet wanting. But the function of the breast during pregnancy seems quite different. At the beginning of pregnancy the corpus luteum may be thought of as an interstitial gland, but the change after delivery is not explained by this. Placenta and ovum have been considered, but placental extract and the pulp of the embryo offer no specific action. A probable explanation is that the mammary gland, which during pregnancy is influenced to increased growth in a specific manner, is influenced to an increased production during the puerperium by a non-specific lymphagogue activity. Certain other observations speak for an antagonism between the ovarian and the mammary function, such as milk secretion after castration, changes in the climacteric in bilateral ovarian tumors and in purulent breaking-down of the ovaries. The author gives the history of a case of atrophy of the ovaries and amenorrhœa with simultaneous adiposity (Dystrophia adiposogenitalis) and pronounced milk secretion. The necessary lymphagogue or leucostimulants depend upon the ovaries in so far as they become effective only after ovarian activity has ceased. From indefinite experimental results it would appear that the breast, on the other hand, may influence the function of the ovaries by hormones, but this has not been established with certainty. In one case of amputation of both hypertrophied mammæ during pregnancy the menstruation became very irregular and weak for 15 months, but subsequently again became normal.

KERMAUNER.

**Prochownick: Acute Tuberculosis Following Gynecological Procedures** (Akute Tuberkulose nach gynäkologischen Eingriffen). *Zentralbl. f. Gynäk.*, 1913, xxxvii, 7.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Prochownick has examined critically 7 cases where tuberculosis followed gynecological procedures and resulted in death. These were often simple operations, such as dilation with laminaria tents, reposition of the retroflexed uterus, attempts at reposition with the sound, curettement following criminal abortion, and extirpation of gonorrhoic or

tuberculous adnexa. In five women there was no evidence of latent tuberculosis in the body or genitalia, although the husbands of two were suspected of being tuberculous. The immediate improvement was remarkable. The beginning of the fatal tuberculosis was relatively late, thus giving late findings in the lungs and pleura. Expectoration and demonstration of the bacilli were entirely wanting. In one case a caseous pneumonia, following an uneventful operation, arose from a focus in the apex of the lung and had given no symptoms. In another case he observed fatal tuberculosis following an extirpation of a tuberculous kidney with an extension into the connective tissue. The author emphasizes the importance of clinical examination. A diagnosis can often be made by summing up all the findings, history, temperature, examination of the blood, the firm flat extension of tuberculous areas, Hegar's rosary, tuberculin reaction, cysto- and rectoscopy and curettement which, however, is vary dangerous, giving a positive result in only about one third of his cases. Tuberculosis must be suspected in every protracted cases of disease of the adnexa which does not yield to treatment. The theories of Krönig that a genital tuberculosis seldom leads to a miliary tuberculosis if local treatment is not employed, and that it almost never causes the death of a patient, must be modified. Whenever tuberculosis is present in the genital tract, a circumspect prognosis should be made. The author cannot agree with this ultraconservative view of Krönig. In tuberculosis localized in the genitalia a cure or improvement lasting through a number of years can be attained by excision of the focus.

BENTHIN.

**Reynolds: The Theory and Practice of the Treatment of Sterility in Women.** *J. Am. M. Ass.*, 1913, lx, 93. By Surg., Gynec. & Obst.

Reynolds discusses intimately the causes of sterility in women with respect to the less pathologic conditions or lesions. Abnormal vaginal or cervical secretions and their influence are considered at length, as is the somewhat new idea that minor enlargement of the ovaries, long regarded as unimportant in all respects, are in reality of great importance in their relation to sterility.

Hostility of cervical uterine secretions may be due either to their altered chemical composition or the mechanical obstruction produced by increased viscosity. Persistent congestion of the upper genital tract has long been known as a bar to fertility. This can be explained by the existence of an overabundant secretion flowing continuously from the os. This congestion may be due to many pathologic lesions, but is also the product of overfrequency or abnormalities in the sexual act or appetite.

An over scanty cervical flow with consequent inspissation is an equally efficient mechanical obstruction to the progress of the spermatozoön. Probably this inspissation is the result of some degree of infection of a secretion which is arrested behind a mechanical obstruction. Mechanical obstruction in married women is followed in most instances by some degree of ascending infection.

He next considers obstacles to the conjugation of the spermatozoön with the ovum, which are furnished by abnormal conditions of the tubes and ovaries.

The existence of an absolutely normal uterine secretion disproves the existence of salpingitis. The coincidence of persistently abnormal uterine secretions and tubal tenderness always warrants a presumption of mild tubal inflammation. These mild inflammations are never found in coexistence with an entirely normal ovary, but are always accompanied by such alteration of the ovary as is usually palpable.

Prognosis of the several classes of sterility:

1. Poor. (*a*) For persistent infantile uterus, or for degrees of underdevelopment which approach it, there is no treatment.

(*b*) After resections of portions of thoroughly diseases tubes the chance of pregnancy is uniformly discouraged.

2. Remediable. (*a*) Sterility due to congestion caused by unsatisfactory sexual relations.

(*b*) Sterility due to alterations in the vaginal secretions is not very common and is usually easily remedied.

(*c*) Sterility due to abnormal cervical secretion usually implies the existence of an altered vaginal secretion as well. When the pathology is situated only in the cervical canal, it is usually a mere inspissation in a dilated canal behind a pinhole os. Its treatment is free drainage with or without curettage.

(*d*) Sterility due to altered cervical, uterine and tubal mucosæ and those complicated by semicystic ovaries are difficult of separate classification. In the treatment of sterility, success is not to be expected in any large proportion of cases unless all deranged conditions are restored to normal. If the enlargement of the ovaries is permitted to persist, a return of the mucous membrane to normal is attended by only a small percentage of pregnancies. Many conditions capable of producing sterility are insufficient to produce the other symptoms which are associated with abnormalities of the pelvic organs.

LEO DWAN.

**Köhler: Technique and Results Obtained with Röntgen Ray Treatment in Gynecology** (Zur Technik und Erfolgen der gynäkologischen Röntgentherapie). *Fortschr. a. d. Geb. d. Röntgen.*, 1913, xix, 408.

By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Köhler reports his experience and results obtained in the treatment of myomata, giving details of technique. Twenty-six cases of myoma were treated. Fifty per cent of the cases resulted in complete cessation of hæmorrhages, while in the other fifty per cent oligomenorrhœa was obtained; a diminution of the myomata could be demonstrated in thirty per cent of the cases. Köhler is a decided opponent

of the radical method of treatment, by which permanent results are expected after a few prolonged exposures. To explain his position, he directs attention to experiments on animals which prove that the mucous membrane of the stomach, for instance, is markedly and permanently altered by intense X-ray illumination. Injuries will result even from smaller doses, but in this instance are not irreparable, as the epithelium will recover its normal condition during the intervals between treatments; the ovarian follicles, however, being very highly sensitive, will be permanently injured even by smaller doses.

THIEMANN.

**Fränkel: Röntgen Rays in Gynecology** (Die Röntgenstrahlen in der Gynäkologie). *Fortschr. a. d. Geb. d. Röntgen.*, 1913, xix, 412.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

In reply to an inquiry concerning the treatment of female diseases by means of Röntgen rays, Fränkel earnestly warns against the employment of enormously high doses, because they lead to vesical and intestinal disturbances and adhesions in the pelvis. These accidents will be avoided by giving small repeated doses, as the intervals between treatments permit recovery of the tissue, which in this respect differ from the very sensitive ovarian follicles. In two thirds of his cases (about 280 cases of myoma) Fränkel obtained good results by his method. He has also successfully extended treatment with Röntgen rays to all the other forms of gynecological hæmorrhage. He has, moreover, employed the method for the permanent or temporary prevention of pregnancy in psychopathic or luetic subjects or in those affected with diseases of the lungs, the kidneys, or the heart. In this direction he finds promise of good results for the future. In four instances he has also successfully employed X-ray treatment for tuberculosis of the peritoneum associated with adhesions, though complete cures could not be obtained. The apparatus required and the manner of its operation are described in detail. THIEMANN.

**Oastler: The Occurrence of Hernia in the Abdominal Wall after the Gilliam Operation for Retrodisplacement.** *Am. J. Obst.*, N. Y., 1913, lxvii, 145. By Surg., Gynec. & Obst.

Oastler reports the occurrence of hernia in two cases at the site of the attachment of the round ligaments to the abdominal wall after the Gilliam operation, which necessitated a repairing operation within the original operation. N. SPROAT HEANEY.

**Chapple: The Treatment of Pelvic Inflammation by Autoinoculation.** *Lancet*, Lond., 1913, clxxxiv, 165. By Surg., Gynec. & Obst.

The author makes a preliminary report on a method of producing autoinoculation. It is generally accepted that an increased blood supply to an affected area causes a liberation of an increased quantity of toxins into the general circulation, thus producing an autoinoculation with the products of the offending organisms. He therefore suggests raising the local temperature of the pelvis sufficiently for a definite length of time to thus secure an increased blood supply to the pelvic organs. The best results will be obtained by regulating the dose both as regards quantity and time of introduction, the aim being to give the second dose when the negative phase produced by the first is over and the positive phase has been definitely entered upon. The desired pelvic congestion is easily produced by the heat emanating from several powerful electric lamps, suspended from a suitable cradle, which surrounds the patient's pelvis. A Fergusson speculum is introduced into the vagina, with its upper end in the posterior fornix and consequently lying almost in contact with the inflammatory area, and its outer end in direct communication with the bath. A typical case from his series of readings showed that the bath temperature was 180°, the temperature of air in the vaginal speculum 135°, and a thermometer placed in contact with the posterior fornix read 101.5°, whereas the mouth temperature was 98.8°. The opsonic index was followed in his cases so far as was possible. C. H. DAVIS.

**Dührssen: Synthetic Hydrastinin Hydrochloricum** (Ueber synthetisches Hydrastinin hydrochloricum). *Berl. klin. Wchnschr.*, 1913, l, 64.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Dührssen uses hydrastinin hydrochloricum, synthetically produced by Bayer, with good results, especially in hæmorrhages due to diseases of the adnexa. The preparation has the same therapeutic qualities of the fl. ext. hydr. canad. It is employed in tablets of 0.025 gr., one tablet four times daily, or as a liquor, 20 drops three times a day. It is considerably cheaper than other preparations.

WAGNER.

**Offergeld: Synthetic Hydrastinin and Its Use** (Ueber synthetische Hydrastinin und seine Anwendung). *Berl. klin. Wchnschr.*, 1913, l, 62
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Hydrastinum hydrochloricum (Bayer) is made synthetically from piperonal (methylenester of protocatechualdehyde). The advantages of the synthetic product over fl. ext. hydrastis canadensis or hydrastinin is that it exerts a much stronger action on the musculature of the uterus, a strong vasoconstrictor effect on the peripheral vessels, and there are no cramps after large doses. The synthetic product is not a heart poison and there is no bad taste, as is present in the natural drug. The quality of the artificial product is always the same and the price is lower.

Offergeld uses Bayer's liq. hydr. hydrochlor. in cases of dysmenorrhœa with good results. He gives 30 minims every two hours 10 days before menstruation. In menorrhagia, interstitial myomata, etc., he used it symptomatically. He had good results in climacteric and preclimacteric hæmor-

rhages, in stagnation hæmorrhage of a retroflexed uterus, in anæmic hæmorrhage, in hæmorrhagic diathesis, tuberculosis, nephritis, and virginal uterus. G. A. WAGNER.

**Schröder: A Case of Atresia Hymenalis with a Large Epitheliocolpus at the Menarche** (Ein Fall von Atresia hymenalis mit grossem glykoschaltigem Epitheliokolpos in der Menarche). *Frauenarzt*, 1913, xxviii, 2.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The case concerns a girl 15 years of age who had not yet menstruated and had to be catheterized frequently for retention of urine; the outer genitalia were well developed, the hymen was closed from all sides by a membrane with a median raphe which was cyanotic and firm. An examination after emptying of the bladder revealed a rounded tumor which reached to the umbilicus and filled the entire small pelvis. Uterus and adnexa could not be recognized. Upon incising the hymen, about two liters of puslike, thick, creamy fluid emptied from the enormously dilated vagina, a procedure which left the patient quite cured. Examination of the evacuated fluid showed vaginal epithelium, traces of blood, very little mucosa, and 2.6 per cent dextrose. The histologic study of the hymen showed multiple layers of pavement epithelium, slight round cell infiltration and plasma cells with muscular fibers at the periphery and elastic tissue nearer the center. The epithelial cells contained glycogen. The author thinks that the atresia of the hymen was of inflammatory origin, and emphasizes the importance of finding flat epithelial cells in the fluid. In the newborn this has been frequently found in cases of atresia; in the menarche, however, similar fluid has been found only twice. The presence of dextrose may be explained by the theory that from the glycogen, normally present in vaginal epithelium, grape sugar is produced by a ferment that is freed after desquamation by the autolytic destruction of the cells, and which the author was able to demonstrate. RITTERSHAUS.

**Rövsing: Gastrocoloptosis.** *Ann. Surg.*, Phila., 1913, lvii, 1. By Surg., Gynec. & Obst.

The author has observed that enteroptosis is rare in men, and so very frequent in women it must almost be considered a feminine disease par excellence; also that, while there is no lack of thin, badly built, neurasthenic men, it is very seldom that they suffer from the train of symptoms now recognized as due to abdominal ptosis in women. Hence Rövsing is surprised that Stiller's hypothesis on the etiology of visceroptosis is so unreservedly accepted by the majority of physicians the world over. He has come, therefore, to regard Stiller's theory as at fault in the main, and to believe that the overwhelming frequency of ptosis in women is due to two circumstances peculiar to them: (1) their misuse of corsets and lacings, and (2) the changes which pregnancy and childbirth involve in the intra-abdominal pressure. The one causes an active subsidence of the subdiaphragmatic organs and stretches and lengthens the suspensory ligaments; while the other removes that support which the intestines, when compressed by a vigorous abdominal wall, offer the subdiaphragmatic organs. While agreeing with Wolkow and Delitzin in their well-known theory regarding support of the abdominal organs, it is evident that the abdominal wall, after many childbirths, becomes like a sort of slack bag, into which the small intestines subside; then the stomach, liver, and kidneys not only lose their support but are dropped, sucked and drawn downward. Their power of resistance against this depends entirely on the firmness and solidity of the ligaments and peritoneal duplicatures by which they are attached to the diaphragm. If these are feeble, thin, and atrophied, as with Stiller's degenerated type of mankind, or lengthened by the use of corsets and lacing, and the organs forced down, the ptosis proceeds rapidly.

Rövsing goes yet further and claims that the constipation, cardialgia, emaciation, emesis, and nervous symptoms are not due to "degenerative asthenia," but explains them as "pains released and caused by the ptosis itself." As regards the pathogeny and symptomatology he distinguishes two forms, the virginal and the maternal ptosis.

In his discussion of treatment the author finds the abdominal binder of considerable support only in the moderate ptosis of the maternal variety, and of least value in the virginal type. Of the two operative procedures extant he favors direct gastropexy. Beyea's operation, shortening of the omentum minus, he finds often technically impossible. Other indirect methods of raising the stomach (Coffey's) give good results only for a relatively short time.

Out of 256 patients 80 were treated; and where the cases have been traced the following results are presented: Complete cure 162, or 63.2 per cent; great improvement, 33, or 12.8 per cent; improvement, 18, or 7 per cent; slight or no change, 32, or 12.8 per cent; deaths, 11, or 4.6 per cent.

Where the gastrocolic ligament is considerably elongated, the omentum and the mesocolon are both shortened. With attendant hepatoptosis, hepatopexy should always be performed simultaneously.

CAREY CULBERTSON.

# OBSTETRICS

## PREGNANCY AND ITS COMPLICATIONS

**Planchu: Extrauterine Pregnancy with Living Fœtus** (Grossesse extra-utérine avec fétus vivant). *Bull. d. l. Soc. d' Obst. e. d. Gynéc. d' Lyon*, 1912, No. 8, 904. By Journal de Chirurgie.

In this case a right tubal pregnancy followed an 8 year period of sterility. In the second month there was a threatened tubal abortion, with extrusion of a portion of the sac into the peritoneal cavity; and in the third month a more extensive rupture led to intraperitoneal hæmorrhage. This rupture involved the tubal sac, but the membrane with its fœtal content continued to develop, half in the tube and half in the peritoneum, up to the date of laparotomy. The fœtus, though living, had been so markedly compressed in the tubal sac that it presented very marked deformities which would have rendered it unfitted for life. The diagnosis of the living fœtus had not been made because auscultation had not been employed. The operator performed a complete extirpation of the sac in place of marsupialization .The operation was marked by a serious hæmorrhage, but the patient recovered.

L. Chevrier.

**Döderlein and Herzog: Pregnancy in an Adenomyoma Uteri—A New Type of Ectopic Gestation.** *Surg., Gynec. & Obst.*, 1913, xvi, 14. By Surg., Gynec. & Obst.

After taking up briefly the theories regarding the implantation of the fertilized human ovum and then a short consideration of the structure of the adenomyoma, the authors detail the features of this interesting case. The patient was 37 years old and had had four easy labors at term. One year ago she miscarried in the second month of pregnancy, was not curetted, and bled for one week. After this she never felt well, and complained of left inguinal pain and backache. Menstruation was normal for 7 months, but very profuse the eighth. Following this she became pregnant and missed three periods. In the fourth month pains and bleeding began and continued for eight weeks. At this time examination revealed a tumor mass, irregular in outline and firm, extending to the umbilicus. Vaginally the uterus appeared to be three times its normal size and crowded to the right by the tumor. The cervix gaped open so that the uterine cavity was palpable. Exploration with sound revealed an enormous depth beyond the fundus. There was a foul discharge and temperature of 101° F. Operation was undertaken two days later. The mass was the size of a five months' pregnancy, a growth in the left parametrium, of fairly hard consistency, with the enlarged uterus below and to the right. This was removed by supravaginal hysterectomy.

The uterine cavity proved to be empty. Above the internal os an oval orifice admitting two fingers led to the left into the tumor, where a large cavity was found. A placenta fairly well preserved almost filled this cavity, with a few pus foci here and there. Microscopic sections were made from the wall of the tumor and of the uterus. Typical villi and fairly well preserved decidua were demonstrable, with considerable leucocytic infiltration. No bacteria were recovered. Large and small gland spaces lined with cuboidal epithelium were found beneath the decidua-like layers. The muscular tissue is composed of hypertrophied cells and fibers, irregularly arranged in bundles and showing a marked œdema. The uterine mucosa shows a moderate hypertrophy, with complicated gland spaces resembling decidua spongiosa. The interstitial connective tissue resembles decidua. The uterine muscularis is in the same degree of hypertrophy as that of the tumor. Inflammatory infiltration is also present here.

"From the macroscopic and microscopic examination of the specimen, it appears that there was present an adenomyoma in the left tubal angle or below it. This tumor, of course, contained glandular spaces, which were probably derived, not from any embryonic inclusions originating from the Wolffian body, but from the uterine mucosa. The gland spaces may have been present in the tumor from the very beginning or they may have entered into its substance at a somewhat later period in consequence of inflammatory processes.

Carey Culbertson.

**Oldfield: Ovarian Gestation.** *J. Obst. & Gynec. Brit. Emp.*, 1913, xxiii, 41. By Surg., Gynec. & Obst.

The patient was 37 years old, had been married 12 years, and had had no previous pregnancy nor menstrual irregularity. On May 1, 1912, the regular menstrual period was missed. May 17 she experienced sudden severe pain in the sacral region, accompanied by a vaginal discharge of blood, like menstruation in quantity and appearance. This continued for four days without pain. June 1 the period failed, and on the 24th, while in bed, the patient fainted. This recurred several times during the day, with discomfort in the abdomen and menstrual-like flow for three days. Fragments of decidua were passed and temperature arose to 101° F. Examination at this time gave a diagnosis of extrauterine pregnancy and operation was undertaken. Dark fluid blood was found in the abdomen and soft friable clots in the pelvis. The left

ovary was enlarged and this with its tube was removed. The tube was normal. The ovary was slightly larger than normal and presented a small oozing depression on the surface. Section showed many large blood-vessels about this area, some extravasated blood, a blood sinus, and one villus in situ. An oval compact mass of lutein cells occupied one end of this depression. Among the clots in the pelvis was found a mole. In this, on section, were found typical villi. The amniotic cavity was distorted and compressed. The blastoderm was extruded from the amniotic sac and lay on the surface of the mole. CAREY CULBERTSON.

**Croom: Pseudo-eclampsia.** *Lancet*, Lond., 1913, clxxxiv, 35. By Surg., Gynec. & Obst.

In this paper the author presents a case which was sent into his charge at the Edinburgh Royal Maternity Hospital as one of eclampsia. The patient, who was a secundipara and seven months advanced in pregnancy, had suffered from fits of a severe character for two days, with very marked coma. As there were no abnormal constituents in the urine, the toxæmia of pregnancy was eliminated, and there being no indications from the eye reflexes nor signs of any paralysis, the diagnosis was extremely difficult. The patient died, and as a result of the necropsy a tumor was found, of the size of a tangerine orange, lying within half an inch of the anterior end of the left hemisphere and opposite to the superior, middle, and inferior frontal convolutions of the convex surface of the hemisphere, and opposite those parts of the marginal and callosal convolutions which lie above the anterior half of the corpus callosum. The tumor consisted largely of layer upon layer of flattened, dead epithelial cells. Between these were to be found, in the fresh condition, crystals of cholesterin. Essentially the tumor consisted of cholesterin with a supporting stroma of connective tissue upon which it lay. The tumor was therefore a cholesteatoma.

The author comments on the comparative rarity of the tumor and its long quiescence in that situation. He describes a further case of meningitis which gave rise to pseudo-eclampsia also, thereafter giving a summary of similar cases that are to be found in literature on the subject, and discussing the cases in which there was a difficulty in the differential diagnosis of eclampsia.

**LaVake: Prophylaxis and Treatment of Eclampsia.** *J.-Lancet*, 1913, xxxiii, 44. By Surg., Gynec. & Obst.

LaVake here attempts only to sum up and emphasize the early symptoms and signs of toxæmia culminating in eclampsia, and to give a routine method of prophylaxis and treatment. His conclusions are based on experience as assistant resident obstetrician to the Sloane Maternity Hospital, New York.

Next in importance to albumin he regards the blood pressure as an index approaching eclampsia. He would empty the uterus only for (1) the onset of convulsions, (2) albumin over 80 per cent, and (3) albumin over 50 per cent after 24 hours' treatment. He advocates nitroglycerin, $\frac{1}{50}$ gr., every four hours for blood pressure over 150, with veratrum viride where the pulse is over 80, and chloral hydrate for rest and quiet when necessary. Rapid induction of labor is opposed, and he prefers the Voorhees bag as a means in slow induction. When rapid delivery is imperative he prefers normal dilatation, using vaginal hysterotomy only where the child is viable, where convulsions are occurring, and where the cervix is long and hard. The author advises strongly against chloroform as an anæsthetic and against phlebotomy. In accordance with this latter view he recommends uterine tamponade after delivery in order to prevent hæmorrhage. He further advocates that the infant be kept from the breast until the mother's condition is normal. CAREY CULBERTSON.

**Liepmann: A Critical Study of Eclampsia and Anaphylaxis** (Eklampsie und Anaphylaxie: eine kritische Studie). *Gynäk. Rundschau*, 1913, vii, 55. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Eclampsia attacks robust, well-nourished women, whereas the weak and nervous are attacked by anaphylaxis. Œdema and albuminuria are present in the former, while an exanthema accompanied by fever are the symptoms of the latter. If eclampsia were caused by an ingress of foreign albumin into the maternal blood from the placenta, then with each succeeding pregnancy the body would become more and more sensitive — it would be more frequent in multiparæ than in primiparæ. Since the converse is true, the author concludes that the albumin of the placenta which passes into the maternal stream in every pregnancy is not foreign albumin. Eclampsia and anaphylaxis have nothing in common. Eclampsia is an intoxication starting in the placenta. Speedy delivery is the safest treatment, because in this way the source of intoxication is eliminated. DIENST.

**Zweifel: The Treatment of Eclampsia** (Ueber die Behandlung der Eklampsie; eine übersichtliche Besprechung). *Monatschr. f. Geburtsh. u. Gynäk.*, 1913, xxxvii, 1.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Zweifel offers a detailed review of the treatment of eclampsia, historically considered. Modern treatment begins with Schröder, upon whose recommendation venesection was replaced by treatment with narcotics and diaphoresis. Dührssen's advance replaced this method by an active operative procedure demanding delivery of every eclamptic immediately after the first attack, or, if she has had several attacks, as quickly as possible. According to these fundamental rules the author has treated, in the years 1892 to 1895, 80 cases with a mortality of 15 per cent; from 1895 to 1901, with the same method, 143 cases with a mortality of

17.2 per cent; and from 1901 to 1910, 400 cases with a mortality of 18.5 per cent. Since examination of the blood has shown that it is less fluid the author has again introduced in his clinic, since 1910, the primary venesection at the onset of eclampsia, combined with Stroganoff's treatment. Never less than 500 cc. are taken, and in some cases the venesection is repeated. With Stroganoff's method medicamentation per os must be avoided on account of the danger of aspiration pneumonia, and stomach may have to be aspirated. Of 84 cases treated by this method 5 died, or 5.9 per cent. Two died of aspiration pneumonia, one of septic peritonitis, and two of eclampsia. Of the entire number, the last 64 cases recovered in order. The fœtal mortality in the 84 cases was 34.5 per cent against 39 per cent and 43 per cent in the former series. Zweifel discredits the statistics compiled by Liepmann and Freund in favor of operative treatment, wherein the cases chiefly considered developed convulsions after delivery and where the high mortality (15.1 to 17 per cent) does not speak for early emptying of the uterus nor for the hypothesis that the toxins originate in the child or the placenta. The expectant treatment of eclampsia has further shown that the attacks cease and pregnancy, with living or dead child, continues, terminating in spontaneous delivery many hours, days, or even weeks later, with no subsequent convulsions. Through his results are excellent, the author holds his method in reservation until some hundred cases shall have run a better course than those treated by operations. ENGELHORN.

**Eichmann: Toxicodermia of Pregnancy Treated with Ringer's Solution** (Schwangerschafts Toxikodermien durch Ringersche Lösung geheilt). *München. med. Wchnschr.*, 1913, lx, 183.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Rissmann (1912) treated 3 such cases with intramuscular injections of Ringer's solution, and shortly thereafter Eichmann reported favorable results by injecting 100 cc. into the gluteal muscles in three cases. Besides this, the patients are put on a vegetable diet. Eichmann regards eclampsia, toxicodermia and nephritis of pregnancy as expressions of intoxication from the alimentary tract. Ringer's solution dilutes the blood, and toxins increase the activity of the kidneys. Vegetable diet prevents the further formation of toxins. TORGGLER.

**Kasashima: Active Treatment in Febrile and Septic Abortion** (Zur Frage über die aktive Therapie bei fieberndem und septischem Abort). *Beitr. z. Geburtsh. u. Gynäk.*, 1913, xviii, 73.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author reports the results of the treatment of abortion at the Sellheim clinic in Tübingen. Of 121 so-called "afebrile" women, 29 when cleaned out digitally proved to be febrile. In the other 46 "febrile" cases, where the temperature was over 37.9° C. before treatment, one half were manually and the other half instrumentally treated. All women recovered, 61 per cent becoming afebrile at once after the operation. The others had fever during the puerperium, generally for two days. Of 15 septic abortions 3 died, two of them under active treatment (12 cases) and the third under conservative treatment (3 cases). In his conclusions the author is reserved, because in but a few cases were bacteriological findings at his disposal. From these figures he believes that active therapy in abortion should not be considered peculiarly dangerous.

HOLZBACH.

**Barrett: Ovarian Tumors Complicating Pregnancy, Delivery and the Puerperium.** *Surg., Gynec. & Obst.*, 1913, xvi, 28.

By Surg., Gynec. & Obst.

In the consideration of this subject, Barrett seeks reply to these questions:

1. Shall the ovarian tumor, discovered during pregnancy, be removed even though symptoms be absent, or only slight, or does obstetric conservatism demand the expectant plan of treatment?
2. Do the complications of delivery and the puerperium in the presence of ovarian tumor warrant an expectant plan of treatment?
3. Is there a certain period of pregnancy most favorable for operative procedure, for which we should wait, or which, if past, should compel the patient to go to term?
4. Which more greatly predisposes to abortion — the *removal* of an ovarian tumor, or its *presence?*
5. Does the removal of double ovarian tumor necessarily result in abortion?
6. Should the abdominal or vaginal route be chosen for removal?
7. Does tapping, puncture, or induced abortion relieve a complicated situation sufficiently to warrant such procedure?

One hundred and fourteen recent cases have been collected for study in this paper, five of which were seen by the author. These cases are reported in detail, and statistics from the literature are presented. Of the 114 cases, 76 were operated on before term. Three of the mothers died and but one of these deaths was due to the cœliotomy. Of the 63 who survived but 9 terminated prematurely. Thirty-eight cases were treated expectantly, with these results. One mother died before term, 7 were lost at term, 7 children were lost; of 6 Cæsarean sections at term, 2 mothers were lost; of 7 cases unoperated, 4 mothers died; of 7 vaginal ovariotomies at term, one mother died; of 3 vaginal punctures one mother died; 6 abdominal ovariotomies were performed during labor and 3 during the puerperium; in general, a maternal mortality of 18.4 per cent.

As a result of his investigation the author offers the following conclusions.

1. That pregnancy frequently takes place in the presence of ovarian tumors, even though both ovaries be involved.
2. That with the onset of pregnancy we have two patients with one pathological condition, rather

than one patient with two pathological conditions, each with claims upon their constitutional rights to "life, liberty, and the pursuit of happiness."

3. That the growth of the ovum produces such changes in position and structure of ovarian tumors as to make it a menace to the child and mother during pregnancy, that extra hazards occur during labor and are at their height for the mother during the puerperium.

4. That induced abortion with its one hundred per cent of child mortality is unjustifiable, in that it offers no corresponding improvement in the condition of the mother.

5. The early removal of the tumor as soon as possible after its discovery, gives a high percentage of good results in both mother and child and removes the hazard during labor and the puerperium.

6. That abortion following ovariotomy any time during pregnancy is in proportion to the damage already done.

7. That tapping or puncture of the tumor shows too large a mortality to make them justifiable procedures, except as preliminary expedients in rare cases.

8. That the danger of abortion after double ovariotomies is not sufficiently great to call for other treatment than that accorded the single tumor.

9. The results during the latter half of pregnancy are such as to warrant removal of the tumor rather than to let the patient continue to term, the increased percentage of abortion being due largely to increased damage previous to or during operation.

10. A patient in labor with a complicating tumor should be placed in the most favorable surroundings possible, and labor allowed to terminate, if unobstructed. This should be facilitated by the use of forceps, if labor is at all difficult and the tumor located well above the pelvis; position and manual efforts may change a pelvic obstructing tumor into an abdominal non-obstructing one.

11. Tumors interfering with labor pains, or located so as to obstruct the outlet or presenting torsion, hæmorrhage, or suppuration, thus offering immediate abdominal complications, may be operated upon with Cæsarean section accompanying, or, if the outlet is adequate, as shown by previous easy labors, or by liberal measurements, and the soft parts well dilated, labor may be allowed to continue, after the removal of the tumor.

12. Vaginal Cæsarean section may be performed in some instances with inertia.

13. Vaginal puncture of an obstructing tumor may rarely be permissible, but should be followed by vaginal or abdominal removal before or after labor, as puncture with non-removal shows high mortality.

14. In all operative procedures during pregnancy great care should be taken in manipulations of the uterus.

15. The uterus shows such toleration, however, that necessary handling, even to stitching, need not be feared.

16. On account of the great risk of torsion and degenerations during the puerperium, an ovarian tumor should be removed as soon after labor as the patient's condition and surroundings will warrant. If delay is necessary, the tumor should be closely observed.

CAREY CULBERTSON.

**McDonald: Glycosuria in Pregnancy.** *Am. Pract.*, 1913, xlvii, 14. By Surg., Gynec. & Obst.

That true diabetes is a rare complication of pregnancy is first shown by McDonald, who then quotes Brocard's experimental work showing that glycosuria is much more readily induced in pregnant than in non-pregnant women. Eschner's and Williams' reports are referred to in detail, showing maternal and fœtal mortality statistics. The author's indications for termination of pregnancy in diabetes are: persistent loss of weight, evidences of toxæmia not easily controlled, death of the fœtus, and increase in the amount of sugar in spite of treatment. Because of the extremely high fœtal mortality, he holds that the child is not entitled to the usual consideration. As a rule pregnancy can have only a deleterious effect upon the diabetes, while the chance of producing a healthy living child is comparatively slight, and a serious glycosuria is a grave complication of pregnancy. While the induction of labor is usually a simple procedure, it may involve considerable shock to the mother and precipitate diabetic coma. The author's conclusions are:

1. In diagnosis, eliminate other reducing substances and transitory forms. Include only those persisting in spite of treatment or showing definite diabetic symptoms.

2. The prognosis is guarded in any case, and is bad in marked ones, both for mother and child.

3. Interruption of pregnancy is advisable if the patient cannot be closely observed or if symptoms are not controlled by careful treatment.

4. A woman who has shown definitely diabetic symptoms in one pregnancy is assuming an unwise risk in going through a subsequent one.

CAREY CULBERTSON.

**Seeligmann: Surgical Treatment of Uterine Hæmorrhage During Pregnancy, Delivery and the Puerperium** (Die chirurgische Behandlung von Uterusblutungen in der Gravidität, Geburt und Wochenblett). *Fortschr. d. Med.*, 1913, xxi, 91. By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author advises against tamponing the uterus in placenta prævia because of the danger of infection, and recommends the simple procedure of tearing the membranes and using the combined version of Braxton-Hicks. When this is impossible because of technical difficulties and in total placenta prævia he uses the metreurynter. This gives him a better prognosis for the child. In very difficult cases of placenta prævia, or when combined with a contracted pelvis, the author advocates Cæsarean section, although he personally has had no cases of this kind.

In cases of hæmorrhage following premature separation of the placenta when the uterus cannot be emptied through the natural channel, Cæsarean section must be thought of to save the life of the mother. In atonic post-partum hæmorrhage seccacornin and pituitary extract are recommended of the newer remedies. In severe post-partum hæmorrhage the author has used uterine douches with sesquichloride of iron and Momburg's apparatus under certain precautions. He reports a case of total placenta prævia which was treated with the metreurynter and version. HIESS.

**Dienst: A Further Report on the Changes in the Blood During Eclampsia and Nephritis of Pregnancy** (Weitere Mitteilungen über Blutveränderungen bei der Eklampsie und Schwangerschaftsniere im Gegensatz zur normalen Schwangerschaft und über Massregeln, die sich daraus für die Therapie ergeben). *Arch. f. Gynäk.*, 1913, xcix, 24.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Dienst continues his investigations on the significance of fibrin-ferment and fibrinogen in cases of eclampsia and nephritis of pregnancy. Lausberg repeated some of the author's former experiments and arrived at conclusions at variance with those of the author, but Dienst replies that his methods were not the same and that Lausberg's conclusions should not be accepted.

The present work deals with the plasma of 83 women, including 42 cases of eclampsia and 6 of pregnancy nephritis. Normally, there is a decrease in the total albumins of the plasma during pregnancy. In all cases of the above named diseases that did not come on suddenly this decrease in total albumins is more marked. The nitrogenous substances that are not held by the albumins are unchanged in amount. Fibrinogen is most markedly increased in pathological pregnancies, while the amount of seroglobulin is decreased. Normally there are 45 to 55 mg. of fibrinogen in oxalate plasma, but 60 to 75 mg. during eclampsia. This is typical for eclampsia and is caused by a leucocytosis. The decrease in total albumins in normal pregnancy is caused by an increase in the amount of water in the blood. Zweifel has shown that the blood contains less water and total albumins during eclampsia. The œdema has its origin outside of the kidney. Dienst thinks the vessels are damaged by the fibrinferment, which is the true toxic agent in eclampsia. He isolated it chemically in nearly every case of eclampsia and nephritis of pregnancy. It is absent during normal pregnancy and in the non-pregnant. The fibrin-ferment, damaging the walls of the vessels, causes œdema, albuminuria, and therefore a decrease of albumin and an increase of fibrinogen. These changes are absent in acute cases, for here the fibrin-ferment overfloods the blood and leads to a very pronounced fibrin formation which provokes the acute eclamptic attack. In 7 acute cases of eclampsia the total albumins and the water content of the blood were quite normal and the fibrinogen only slightly increased. When the fibrin-ferment is present there is a decrease in the production of antithrombin by the liver. During the height of the attack the latter is entirely wanting, although it is present in the plasma during normal pregnancy. The true cause of eclampsia is the insufficient production of antithrombin and the ensuing overproduction of thrombin. The fibrin-ferment comes from the placenta, and on this account we find eclampsia only during pregnancy, especially toward the end thereof. The attack is precipitated as soon as the fibrin-ferment reaches a concentration sufficient to make fibrin from the fibrinogen. These conditions are ripe when fibrin-ferment is to fibrinogen as 1:215. In the treatment the author advises Stroganoff's narcosis, free venesection, and the hastening of labor. Hirudin can replace the antithrombin, but on account of its toxicity should only be used in critical cases. Drinking of acidulated water is a prophylactic. SEMON.

## LABOR AND ITS COMPLICATIONS

**Jacoby: Pituglandol in Labor** (Pituglandol als Wehenmittel). *Zentralbl. f. d. ges. Therap.*, 1913, xxxi, i.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author bases his results with pituglandol in labor on 20 cases in his private practice. There were 12 births at term, 2 deliveries in the eighth month, 5 artificial abortions and one premature delivery. In the first group of 12 cases the result was very satisfactory, including one threatening eclampsia and one breech presentation. Forceps were required five times. In the second group placenta prævia appeared twice, with one bad and one good result. In the third group, a case of premature delivery with fever and spontaneous labor resulted fortunately, but in the 5 cases of artificial abortion no second stage of labor could be effected. After a subcutaneous injection of 1.1 cc. strong labor pains set in, lasting regularly for about 3 hours. In 4 cases two injections were made, and the increased severity of the pains was quite conspicuous. Injuries to mother or child were not observed. According to the author's view, pituglandol is a harmless remedy (1) for overcoming primarily or secondarily weak pains, the influence being most noticeable shortly before the second stage of labor; (2) for accomplishing delivery more quickly in cases where the mother's condition is not good; (3) for quicker expulsion of the fœtus in premature delivery. GRÄUPNER.

**Hartung: A Case of Dementia Paralytica in Labor** (Fall von Dementia paralytica und Geburt). *Deutsche med. Wchnschr.*, 1913, xxxix, 72.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

As a supplement to the article of Löwenhaupt (*Deutsche med. Wchnschr.*, 1912, No. 36) Hartung reports the history of a patient where a typical dementia paralytica developed during pregnancy. There were several remissions after delivery, as a result of which the disease was much protracted, ending in death six years later. Autopsy showed evidence of an old pachymeningitis. SIMON.

**Rieck: Occlusion of the Rectum after Delivery in a Case of Rachitic Pelvis** (Darmverschluss nach Entbindungen bei plattem bzw. rachitisch plattem Becken). *Zentralbl. f. Gynäk.*, 1913, xxxvii, 19.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The patient was a primipara 30 years old, on whom a transperitoneal Cæsarean section had been performed on account of a rachitic deformity of the pelvis. On the day following the operation the large intestine became distended with gas. Enemata, etc., were without avail, and on the third day symptoms of peritonitis developed. Rectal examination with the patient lying on her side caused the elimination of gas and fæces. Obstruction of the rectum between the uterus and promontory was easily palpated on digital examination. The author suggests the following procedure: Thorough elimination, with the patient in side-position; then the puncture of the colon with a hypodermic cannula. The patient is in knee-elbow position for the operation, and digital examination serves as a control.

KERMAUNER.

**Jaschke: The Use of Narcophin in Obstetrics** (Ueber die Verwendung des Narkophins in der Geburtshilfe). *München. med. Wchnschr.*, 1913, lx, 72.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Jaschke reports 45 cases in which he injected narcophin in doses of 0.03 (1 ampulla of morphin-narcotin-meconati) for the purpose of lessening the pains during labor. It has many advantages over other remedies, such as morphin, pantopon, etc. If one injection does not effect complete amnesia, it certainly relieves the pains in so far that even very sensitive persons are well satisfied. No bad after effects for mother or child have been noticed. In two cases there was no result. In its ideal effect narcophin produces an agreeable relaxation, and after half an hour the pain decreases distinctly so that the women utter no more cries. Only exceptionally is there a decrease in the activity of the labor.

EBELER.

## PUERPERIUM AND ITS COMPLICATIONS

**Asch: The Operative Treatment of Puerperal Sepsis** (Zur operativen Behandlung puerperaler Sepsis). *Berl. klin. Wchnschr.*, 1913, l, 134.
By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

Because of the inaccessibility of conservative therapy, the author recommends the abdominal radical operation and the ligation of the veins according to Trendelenburg. The removal of uterus, adnexa, and parametric infiltrate has given good results only in those cases in which a longer interval has passed by since infection took place; in recent cases, this method usually failed. In these the veins must be ligated as early as possible. Whether it is necessary to remove the thrombi as well is still being debated.

In a case of severe puerperal sepsis, in which a left-sided thrombosis of the spermatic veins was diagnosed, the author proceeded as follows: he opened the abdomen to explore the peritoneal cavity and was able to demonstrate only slight adhesions around the left tube and ovary. The right side was perfectly free. The thrombus extended from the left parametrium to the kidney. The peritoneum was now closed in the midline and freed laterally till the thrombus was exposed. The central ligature on the spermatic vein, which had to be applied close to the opening into the renal vein, cut through and necessitated a suture of the renal vein to stop the free hæmorrhage. The freeing of the thrombus with its periphlebitic deposits led deep into the parametrium as far as the wall of the uterus. Next the retroperitoneal wound cavity was tamponed and the tampon led to the exterior by a lateral incision through the abdominal wall. After reopening the peritoneum in the midline the left adnexa were removed intraperitoneally and a wedge-shaped piece of the uterus, in which the thrombosed veins lost themselves. This mass was removed together with the extraperitoneal thrombosed veins; the resulting slit in the ligamentum later was closed and the abdominal cavity completely closed. After free drainage through the lateral opening, the complete recovery of the patient occurred.

GENEWEIN.

## MISCELLANEOUS

**Murlin: Some Observations on the Protein Metabolism of Normal Pregnancy and the Normal Puerperium.** *Surg., Gynec. & Obst.*, 1913, xvi, 43. By Surg., Gynec. & Obst.

In three normal cases, two primiparæ and one tripara, the distribution of nitrogen and sulphur in the urine was studied by current methods of analysis. The patients were kept on carefully controlled diets and the urines were collected continuously throughout the observation periods, covering the last weeks of pregnancy and the entire puerperium. The conclusions reached were as follows:

1. The percentage distribution of the nitrogen and sulphur fractions of the urine was very nearly the same in the ante-partum and post-partum periods.

2. The total nitrogen in the urine shows a sudden increase, independently of the nitrogen in the food, at about the sixth or seventh day post-partum.

3. The nitrogenous autolytic products from the uterus are for the most part converted to urea before excretion.

4. The ammonia nitrogen is slightly higher in the ante-partum period than in the post-partum period.

5. The urea-plus-ammonia nitrogen in the ante-partum period is lowest in percentage of the total nitrogen, when the retention of nitrogen is probably greatest. This confirms the idea, expressed elsewhere for the dog, that the nitrogen held back for growth of the product of conception is potentially urea or ammonia nitrogen.

6. The formol-titrating fraction is the same after delivery as before.

7. The creatinin nitrogen is higher, both relatively and absolutely, before delivery than after; the creatin nitrogen higher in both senses after delivery than before. There is no indication in the urine of hepatic inefficiency in late pregnancy. Creatin in the urine before delivery may indicate a lack of carbohydrate in the food; after delivery it is always present during the involution period.

8. The N:S ratio in the urine of these patients was slightly higher than is usually found on an adequate diet. Because less food was ingested immediately after delivery than before, the ratio was higher in the post-partum period.

9. The inorganic-sulphate sulphur was lowest in percentage of the total sulphur where the retention of nitrogen was (probably) greatest, and highest where the retention was least. The neutral sulphur was least in percentage where the retention was least, but, owing to indicanuria, was not greatest where the retention was greatest.

10. A high percentage of neutral or unoxidized sulphur does not indicate diminished oxidation in the pregnant subject.

11. The distribution of the sulphur fractions indicates that the sulphur which is excreted as inorganic sulphate is the sulphur held back for fœtal development.

**Mayer: Some Rare Forms of Contracted Pelvis** (Ueber einige seltene Formen von engem Becken). *Beitr. z. Geburtsh. u. Gynäk.*, 1913, xviii, 53.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Mayer describes four pelves.

1. A pelvis after the performance of two hebosteotomies. After the first sawing through, osseous healing occurred and the pelvis remained the same. After the second operation, however, only connective-tissue healing took place and the pelvic ring remained permanently enlarged, thus securing a considerable improvement as a result of a different method of bony union. Five and one half years after the second hebosteotomy spontaneous delivery occurred, though the head of this child had a greater circumference than that of the former.

2. A pelvis after two hebosteotomies. After the first union it was smooth and osseous and the pelvis functionally unchanged; after the second operation the bone united with a slick callus on the inner surface, whereby the pelvis became considerably narrower, though the conjugata diagonalis was increased. At the next delivery Cæsarean section had to be performed. The endeavor should be to gain, therefore, a connective tissue union after hebosteotomy. Disturbances in the gait need not be feared, because the pelvic ring is separated only unilaterally. The character of the bony union depends probably on age of patient, whether fully grown or not; on constitutional and local influences; on the width of the gap in the os pubis, fixation of free ends in healing, and on hæmatomata, infections, etc.

3. A pelvis narrowed by traumatic fracture of the acetabulum and central luxation of the head of the femur, which is functionally similar to the Chrobak pelvis. The mechanical difficulties in labor may be surprisingly slight, however, as an analogous case shows. Though the area of the acetabulum protruded 4 cm. into the pelvis, a child of 4000 gr. was born in a primipara, the second stage lasting only 1½ hours. The anterior parietal bone is held back a little, like the posterior in a rachitic pelvis.

4. A typical flat rachitic pelvis with luetic changes in the bones. The pelvis is rachitic with a slight protrusion of the symphysis as in osteomalacia, a narrow pelvic outlet, and a peculiar roughening and thickening of the bones. The first is explained as a syphilitic softening and the latter as periostitis luetica. The Wassermann reaction determines syphilis, the saber-sheath tibia being strongly suggestive as well. Cæsarean section was done for the eighth delivery, after seven children were born per vias naturales, four of whom are living.

WAGNER.

**Leavitt: Moderate Degrees of Pelvic Contraction and Their Obstetric Problems.** *J. Am. M. Ass.*, 1913, lx, 4. By Surg., Gynec. & Obst.

In generally contracted or simple flat pelvis, we are sometimes unsettled as to whether labor should be induced a few weeks before term, the forceps relied upon, pubiotomy performed, or abdominal section made. Craniotomy should never be necessary when reasonable facilities are at hand for doing clean surgery. With a true conjugate of 7 cm., a Cæsarean section is absolutely indicated; but when the true conjugate measures 9.5 cm. we may easily err in the choice of methods. In Leavitt's experience with high forceps and Cæsarean section, the former has exceeded the latter in mortality.

For convenience, pelvic contractions are divided into two degrees — absolute and relative; the former contemplates therapeutic abortion or Cæsarean section at term. With 7 cm. true conjugate as the dividing line, it was found in the Schauta clinic that no spontaneous births took place, and that intervention was required in 85 per cent of those having a true conjugate of 7.5 cm., 75 per cent having 8 cm., 50.3 per cent having 9 cm., and 24.4 per cent having a true conjugate of 9.5 cm. Every pregnancy complicated by a contracted pelvis is a law unto itself. When and why one procedure is better than another cannot be answered dogmatically.

LEO DWAN.

**Rotter: The Treatment of Narrow Pelves** (Verfahren zur Heilung enger Becken). *Zentralbl. f. Gynäk.*, 1913, xxxvii, 52.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Rotter performed a resection of the promontory in a case of generally contracted pelvis with a conjugata vera of 7.8 cm. The patient had had a number of miscarriages, and was not pregnant at the

time of operation. The peritoneum of the promontory was incised 6 to 7 cm., the subperitoneal fat, etc., was pushed aside, and the median sacral artery was ligated 2 cm. above the promontory. With a 4 cm. chisel the promontory was removed, the subperitoneal fat and peritoneum were approximated, and the abdominal incision closed. Healing took place by first intention.

In this operation a part of the lumbar vertebra, the intervertebral ligament, and a portion of the first sacral vertebra were removed. The periosteum being removed with the bone, callus formation is prevented. A piece of bone 2 cm. thick can be removed without any danger. It is advisable to operate when the woman is not pregnant. The gait, etc., are not affected by the operation.

WALTHER HANNES.

**Kehrer: Preliminary Report on Exact Measurement of the Pelvis by the X-ray** (Vorläufige Mitteilung zur exakten röntgenologischen Beckenmessung). *Zentralbl. f. Gynäk.*, 1913, xxxvii, 55.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author reports that he has been working with Desauer, in Frankfort, on the problem of measuring the pelvis by means of the X-ray. More exact reports will follow the completion of the work. The method of measuring is simpler and more exact than that given by Hänisch, permitting measuring of the conjugata vera within a millimeter when the promontory and symphysis appear sharply on the X-ray plate. MUELLER.

**Martius: A Monstrosity with Persisting Cloaca, Band-like Ovaries, and Other Genito-Urinary Defects** (Ein Fall von persistierender wahrer Kloake mit bandförmigem Ovarium und anderen seltenen Missbildungen im Urogenitalsystem). *Frankf. Ztschr. f. Pathol.*, 1913, xii, 47.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The case here reported appeared first as a breech presentation, labor coming on during the seventh month of pregnancy and resulting in dystocia. In an attempt to pull the trunk through the birth canal the legs were torn off. The distended abdomen of the fœtus was opened and the birth completed. Near the pelvis a cystic tumor the size of a fist proved to be a true cloaca, both colon and ureters emptying into it. The left kidney was displaced and adherent to the right. The right ureter emptied into the right side of the cloaca; the left was obliterated but attached to the left wall of the cloaca. A 6 cm. broad band of tissue on the posterior abdominal wall proved to be the ovary. The uterus was 1 cm. long and the left tube ended blindly. The external genitalia looked like those of a male (pseudohermaphroditismus femininus externus). The aorta branched atypically, and pulmonic stenosis with atrophy of the right ventricle existed. Another anomaly was the entire absence of the fifth and sixth ribs. BERBERICH.

**Häberle: A Case of Double Deformity** (Ein Fall von Doppelmissbildung—Dicephalus tribrachius). *Beitr. z. Geburtsh. u. Gynäk.*, 1913, xviii, 39.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Häberle gives a detailed description of the monster. Upon a common strong trunk are two normally developed heads with two well-developed necks. The circumference of the right head is 34½ cm., of the left one 33 cm. The face of each head is directed forward so that the lateral surfaces of the skulls are opposite each other. The right and the left arm are normal, the middle arm shows distinct traces of fusion, such as a broad, thick humerus and two radii; a normal ulna, three normal fingers, one rudimentary index finger, and two thumbs. The scapulæ and clavicles are well developed. In the formation of the shoulder joint only the scapula of the left child participated. Spinal column, os sacrum and coccyx are double. The outer ribs are completely developed and united in front in a broad, simple sternum. The ribs between the two spinal columns are deformed. To the right from the right os sacrum and to the left from the left os sacrum are normally developed pelvic bones, which unite normally in front to form the symphysis. The lower extremities are perfectly normal. Thymus, thyroid gland, and all organs of the chest are double. Both pericardia are extensively adherent to the median surfaces and the anterior thoracic wall. Portions of the liver, pancreas, and stomach project through a gap in the diaphragm into the posterior part of the thoracic cavity. They are free of peritoneal covering. There is one large liver and two gall-bladders. The pancreas and stomach are double, in the left fœtus normal, in the right one rudimentary, as is the right œsophagus as well. Except for the duodenum, the intestines are singly developed. One spleen and one right horseshoe kidney are found with double suprarenal capsules. On the right side is one ureter. The left kidney is missing. The genital organs are male, single, and perfectly normal. The delivery of the monster, which weighed 4000 gr., was spontaneous, the head of the right fœtus coming first in face presentation, then the trunk, and then the second head. The death of the fœtus occurred intra partum. There had been no previous deformities in the family, and the mother had already given birth to two healthy children. HARM.

**Sarateanu and Velican: The Wassermann Reaction During Pregnancy and the Puerperium** (Die Wassermannsche Reaktion in der Schwangerschaft der Frauen und bei den Wöcherinnen). *Monatschr. f. Geburtsh. u. Gynäk.*, 1913, xxxvii, 89.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Sarateanu and Velican, of the obstetric clinic of the Maternity Institute in Bucarest, have examined the blood of 27 women (5 during pregnancy and 22 during the puerperium) and in one the cerebrospinal fluid, and draw from the results the following conclusions: The Wassermann reaction is a very

effective method for diagnosticating and ascertaining lues in obstetrics. However, the reaction fails to give in every luetic gravida and puerpera an absolutely positive result. An absolutely positive result indicates lues with certainty, even when manifestations are missing; but a negative result does not justify a presumption to the contrary. With missing or uncertain luetic manifestations the result is generally negative. The Wassermann reaction proves that the maceration of stillborn or prematurely delivered fœtuses is luetic in most cases. The number of premature deliveries with specific characteristics effects a lowering in the intensity of the reaction in general, but without having a definite, regular influence upon it. A review of the literature concludes the work. SCHMID.

**Fox: Lithopedion: Presentation of Specimen; Report of Operation.** *J. Tenn. S. M. Ass.*, 1913, v, 351. By Surg., Gynec. & Obst.

The author reports a case of lithopedion which he removed. The specimen is that of a fœtus of seven months' development and completely calcified. Tne features are well preserved and every part can be recognized. The calcification has extended to the placenta, so that the entire mass is almost as solid as stone. Eight years ago the patient missed her periods for seven months, during this time having all the symptoms of normal pregnancy, when labor pains came on, lasted a number of hours, and ceased. She had none of the usual symptoms of rupture of ectopic pregnancy. She lived in comparative comfort, marrying twice afterward, and finally consulted a physician owing to a marked constipation. The operation showed the lithopedion free in the abdomen except for adhesions to the fundus of the bladder, the anterior parietal wall, and a long band to the omentum. A careful examination of the uterus, tubes, and ovaries revealed nothing abnormal, or any evidence of its original attachment. The patient has been in good health since the operation. C. H. DAVIS.

**Reder: Complete Absence of Milk in the Primipara.** *Am. J. Obst.*, N. Y., 1913, lxvii, 66. By Surg., Gynec. & Obst.

Reder tells of three primiparæ between the ages of 26 and 32 in whom no milk appeared after labor. All had instrumental deliveries, and nursing was tried at regular intervals. In two cases no colostrum could be expressed from the breasts. One of these two had the same findings after a second labor. One woman had colostrum at the time of labor and had no milk reaction after delivery, and there was no family history which explained this rare occurrence. The women were said to be otherwise normal.

N. SPROAT HEANEY.

**Härtel: Salvarsan in Chorea Gravidarum** (Salvarsan bei Chorea gravidarum). *München. med. Wchnschr.*, 1913, lx, 184.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Because of the good results of Salinger and Szametz with salvarsan in chorea minor, the author injected 0.5 intravenously a patient pregnant 7 months who had chorea gravidarum and in whom the Wassermann reaction was negative. On the fourth day after the injection the patient began to improve, and on the fifteenth day she was well. Two months later the woman, then in the last month of pregnancy, was presented to the Gynecological Society. TORGGLER.

**Weinberg: Sex Determination in Man** (Zur Frage der Vorausbestimmung des Geschlechts beim Menschen). *Beitr. z. Geburtsh. u. Gynäk.*, 1913, xviii, 147.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

This article is in reply to one by Schöner (*Beitr. z. Geburtsh. u. Gynäk.*, 1912, xiii, No. 2). Schöner cannot predict the sex of the first child. According to his analysis, in families with two children the second child must be of the same sex as the first one if the second pregnancy belongs to the sixth period of ovulation. Such is the rule in half of his observations. With respect to Schöner's theory, the author considers only this one sixth. Of 94 cases, though, 44 were of different sex. Lest cases of premature delivery might disturb the theory, they have not been used. Those cases which conform to the theory may also be based upon error. Binovular twin pregnancies are explained as physiologic exceptions by Schöner, because he cannot bring them into unison with his theory. The statement of Schöner, that of the ovules of one and the same sex, two thirds should be present in one ovary and one third in the other, is incomprehensible, as is that of the sex selection with such regularity by the maturing ovule. Schöner further pays no attention to many sources of error; for example, that two ovules may be fecundated without proved twin delivery; that ovulation may continue during pregnancy, etc. Weinberg contends that conformation of Schöner's theory is correct in part only, since his prognosis is incorrect.

HIRSCH.

# GENITO-URINARY SURGERY

## KIDNEY AND URETER

**Beall: Subcutaneous Rupture of Kidney.** *Med. Rec.*, 1913, lxxxiii, 64. By Surg., Gynec. & Obst.

Injuries of the kidney are not common. Küster, in 7740 injuries at his clinics at Basel and Berlin, saw only 10 cases, and of these only one was an open wound. In 2610 autopsies following injuries, there were 13 in which the kidneys were damaged, 1 only being of a penetrating nature. Israel records only 1 operative case. The analysis of Keen's 155 cases shows 19 gunshot wounds, 8 penetrating wounds, 118 subcutaneous ruptures, 2 partial nephrectomies from rupture, 6 traumatic hydronephroses, and 2 ruptured ureters.

Subcutaneous rupture is the most common form of kidney injury and occurs more often in men than in women. Of 299 cases collected by Küster, 281 occurred in men. This great difference, however, is easily explained by the greater exposure of men to injuries of all kinds. However, Küster says that in loin injuries the greater mobility of the kidney in women is also a factor. Rupture of the kidney is, as a rule, the result of direct violence. Küster, in his experimentation on the mechanism of the production of the injury, tries to show that in most cases it is due to the effect of a force (hydraulic in nature) acting through full vessels and a full pelvis, causing the kidney to burst along the lines radiating from the hilum in the direction of the tubules. In crushing injuries, laceration by direct impact of a rib may occur; and still more uncommon is rupture by muscular action alone.

The symptoms are general and local, primary and secondary. The primary general symptoms are shock and hæmorrhage. The primary local symptoms are pain, tenderness, swelling in the region of the kidney, and hæmaturia. The pain is dull and deep seated, but the passage of blood clots along the ureter may cause paroxysmal attacks of acute pain. As perirenal extravasation ensues the pain becomes more diffuse and the swelling increases. If the peritoneum is torn, symptoms of acute peritoneal irritation will be added to the picture, though we may get these symptoms on the affected side from the retroperitoneal irritation alone. Hæmaturia is the most valuable of the local signs, and this with pain, tenderness and swelling in the loin leaves little doubt as to the diagnosis. Hæmaturia occurred in 65 of 71 cases tabulated by Maas and in 18 out of 26 cases reported by Morris. It comes on soon after the injury, varies in intensity, and may last from a few hours to many days.

The secondary general and local symptoms are due to changes that take place in the kidney and perirenal tissues from infection or reactional processes following the injury and extravasation of blood and urine. Infection may take place from the bladder, or through a weakened intestinal wall or through the blood stream. The injury of the kidney itself may lead to infection with localized abscess formation or a unilateral chronic nephritis. Anuria has been noted, even where the injury was unilateral and of slight degree.

In rupture of the kidney the chief immediate danger is hæmorrhage and the most important late danger is infection. The prognosis depends upon the degree of the injury. In 108 cases collected by Grawitz, 58 recovered. In 14 instances the primary hæmorrhage caused death, in 7 suppurations of the kidney, and in 3 anuria. Of Küster's 306 cases, 222 were uncomplicated and had a mortality of 31 per cent. The prognosis is much more grave in children. Maas' figures indicate a mortality of 85 per cent in children under 10 years.

Many cases of rupture of the kidney recover spontaneously. In the absence of shock, with only a slight hæmaturia and a moderate amount of local swelling, rest in bed may effect a cure. Excessive pain may be relieved by anodynes and strapping of the parts. Medication is of doubtful value in controlling the hæmorrhage. Rest in bed should be prolonged, as the hæmorrhage is likely to occur. Immediate operation is indicated when the hæmaturia is severe, when a lumbar hæmatoma is growing, or when there are signs of intraperitoneal trouble. Continued or intermittent hæmaturia justifies an exploratory operation.

The nature of the operation must depend upon the conditions found. The indications are to control the hæmorrhage in some way and to provide a means of egress for the extravasated fluids. Extensive laceration or injury of the larger renal vessels will necessitate nephrectomy.

Except in mild cases, early exploration gives the best results. Delbet collected 319 cases, of which 225 were treated without operation, with 103 deaths. In 50 cases the kidney was exposed, with 2 deaths. In 44 cases nephrectomy was done, with 11 deaths. Watson's tabulation furnishes the following: Of 273 cases treated expectantly 81 died, mortality 30 per cent; of 99 treated by conservative operation 7 died, mortality 7 per cent; of 115 treated by nephrectomy 25 died, mortality 22 per cent.

Except for cases of mild degree, early operation for rupture of the kidney must be considered a life-saving measure. H. D. Orr.

**Plummer: Dystopic Kidney.** *Surg., Gynec. & Obst.*, 1913, xvi, 1. By Surg., Gynec. & Obst.

The writer of this article gives a résumé of the subject, devoting attention principally to its clinical aspect, but also referring to the anatomy and pathology of dystopic kidney.

He adds 17 clinical cases to the 67 reported by Sträter in 1906, and makes a critical study of the 84 cases thus collected. He also describes 4 laboratory specimens and gives illustrations of the same.

*Definition.* By dystopic kidney, renal dystopia, or congenitally misplaced kidney is meant a condition in which the kidney is abnormally situated in the body, never having occupied its normal position.

*Anatomy.* In size, the dystopic kidney is generally approximately normal, although sometimes it is found to be considerably less. Its shape is often modified by its abnormal location in the body.

Its most striking anatomical peculiarity is its vascular supply, which always originates from a point lower than the normal and is usually a liberal one, two or more arteries and veins being the rule. The arteries have been found to arise from the lower portion of the aorta, the common iliac, the internal iliac (hypogastric), the median sacral, and the inferior mesenteric artery.

The ureter is generally shorter than normal. The adrenals are found in their normal locations, not accompanying the kidneys in their dystopic locations.

The location varies within wide limits from a position slightly below normal to one entirely within the small pelvis. The misplaced kidney is usually found on the side where it normally belongs, but it may be on the opposite side.

Defects in the genital organs of both sexes, of the bladder, and of the rectum have been noted in cases of dystopic kidney.

*Pathology.* In the majority of cases the misplaced kidney is normal in structure, but it may be subject to any of the pathological conditions found in normally placed kidneys, being especially prone to hydronephrosis or pyonephrosis. Calculus, sarcoma, tuberculosis, and cystic degeneration have been found.

*Clinical manifestations.* The symptoms caused by a misplaced kidney, otherwise normal, are most frequently similar to those caused by disease of the uterine adnexa, but sometimes the symptoms are referable to pressure on the rectum or bladder. In pathological conditions of the misplaced kidney there are found, in addition, the symptoms ordinarily accompanying those conditions.

*Diagnosis.* In cases otherwise normal, palpation is of great value. As a rule a dystopic kidney is but slightly movable, in contradistinction to floating kidney. Catheterization of the ureters may reveal a difference in lengths in the two ureters. The X-ray used with catheters in the ureters is of great assistance. Misplaced kidney is more common on the left side, while movable kidney is more common on the right side. If the kidney is exposed by operation, the most decisive finding is the abnormal vascular supply. Accompanying defects of the genital apparatus are suggestive of dystopic kidney.

*Differential diagnosis.* Dystopic kidney is most frequently mistaken for a tumor of the adnexæ, especially an ovarian cyst. If pyonephrotic it may be mistaken for a pus tube. Cases have been mistaken for carcinoma of the bowel, hæmatometra, appendicitis, pericystitis, retroperitoneal cyst, or tuberculosis of mesenteric glands.

*Treatment.* It is well to consider separately the cases in which the kidney structure is normal and those in which a pathological condition of the dystopic kidney is present. As the dystopic kidney has been found to be solitary in a number of cases, it is imperative to determine the presence and functional capacity of the second kidney.

In pathological cases the treatment must be the same as in similar cases in normally placed kidneys, the method of approval in operative cases being modified so as to adapt it to the abnormal location of the kidney. In cases where the kidney is normal in structure no operative interference is indicated unless the symptoms are of considerable severity.

If the uterine adnexæ are diseased in such a manner as to make their removal proper, confine the operative interference to the adnexæ. On many cases all symptoms will disappear; if not, the kidney may be dealt with later.

If operation on the kidney itself is required, the operation of choice is dislocation of the kidney and reimplantation in a location where it will not be a mechanical hindrance. Nephrectomy should be a last resort. Ventral laparotomy is the best method of approach in operative procedure on a normal dystopic kidney.

A dystopic kidney, if located in the small pelvis, may cause disturbances of pregnancy and parturition. In most cases, delivery can take place without operative interference. The management of dystopic kidney complicating pregnancy and parturition is summed up as follows:

If discovered at the beginning of pregnancy: laparotomy, dislocation, fixation; if discovered later, consider the advisability of the induction of premature labor. Do not remove a normal kidney shortly before or during labor. If discovered after labor has begun, a pathological kidney may be punctured to allow delivery, nephrectomy to be done after the puerperium. If, during parturition, delivery cannot take place without injury to mother or child, either, in case of a dead child, perform craniotomy, or, in case of a living child, Cæsarean section or an operation to widen pelvis.

**Kretschmer: Unilateral Kidney Hæmorrhage with Reference to So-called Essential Hæmaturia.** *Surg., Gynec. & Obst.*, 1913, xvi, 34. By Surg., Gynec. & Obst.

This article embraces a detailed report of a case of painless renal hæmaturia which might easily have been erroneously classified as one of so-called

essential hæmaturia. The author calls attention to the fact that these cases of so-called essential hæmaturia really have a pathologic basis. In the histological report all excised pieces of kidney in this case showed the presence of nephritic changes A careful consideration of the literature revealed various lesions, not only of the kidney but also the renal pelvis in cases of so-called essential hæmaturia.

The author's conclusions are:

1. Unilateral renal hæmaturia does not always mean unilateral disease, as one may be dealing with a bilateral lesion, although only one side may be bleeding at the time of examination.

2. Absence of albumin and casts in the urine does not exclude the presence of nephritic changes in the kidney.

3. Cystoscopy and ureteral catheterization must be employed in each case to determine definitely the renal origin of the blood.

4. Histologic examination of several pieces of excised tissue, or preferably of the entire kidney, must be made in every case before a diagnosis of essential hæmaturia can be made.

5. Cultures of catheterized specimens of urine from each kidney, to determine a possible bacterial cause for the hæmorrhage, must be made in all obscure cases.

A bibliography of 72 numbers is appended.

**Truesdale: Unilateral Hæmaturia in Chronic Nephritis.** *Boston M. & S. J.*, 1913, clxviii, 150.
By Surg., Gynec. & Obst.

Truesdale reports two interesting cases of unilateral hæmaturia in chronic nephritis. The first case was that of an old lady of 70 years who noted hæmaturia of sudden onset, associated with no other symptoms. Ureteral catheterization revealed the right kidney as the source of the hæmorrhage. No medicinal treatment had any influence upon the bleeding until serum from a rabbit was injected, when the hæmorrhage stopped for three days. Nine months after the onset of the condition a nephrectomy was performed. The removed kidney showed no evidence of disease other than chronic intestinal nephritis, fatty degeneration and arteriosclerosis. The patient died a year after operation, from uræmia.

The second case was that of a man, 52 years of age, who for 30 years had been exposed to the effects of lead and had at intervals shown moderate symptoms of plumbism. The onset of hæmaturia was sudden and profuse. Later the bleeding diminished, but was always enough to impart a smoky color to the urine. Ureteral catheterization also revealed blood in quantity from the right kidney, while from the left there was no blood although there was a trace of albumin, with many casts of all varieties. In this case the bleeding gradually stopped and the patient had a respite for six months. These cases are not of extraordinary rarity, but are of great interest from a diagnostic standpoint.

J. S. Eisenstædt.

**Pettis: A Case of Neoplasm of the Remains of the Wolffian Body Simulating Hypernephroma.** *Phys. & Surg.*, 1913, xxxv, 27.
By Surg., Gynec. & Obst.

The patient entered the University Hospital complaining of a mass in the left side and pain in the right side. Nine months previously she had had an attack of jaundice accompanied by nausea and vomiting. The urine was highly colored, but there was no pain or clay-colored stools. This attack lasted about three weeks, and after the attack the patient felt well for about six months. Then she first noticed a mass in the left side just below the ribs, and she also experienced pain upon lying on the left side. Shortly after these new developments she experienced a severe sharp pain in the right side below the ribs, which radiated to the right side of the back and the right shoulder. She began to have fever, and the pain and fever continued up to the time she entered the hospital. The patient lost about twenty pounds in the six months previous to her coming to the hospital.

The physical findings were significant. The patient was a woman of medium build, sallow complexion, slightly icteric, and somewhat emaciated. Nothing of importance was found in the chest except a high liver dullness. In the abdomen were two distinct masses. On the left side a mass extended about three fingers below the costal margin; it had no definite edge and could be felt distinctly in the back. The mass on the right side extended from the costal margin downward as far as the umbilicus and a little to the left of the median line. It had a definite edge and felt like an enlarged liver. Both masses descended on inspiration. Catheterization of the ureters was attempted. It was successful on the right side, but the catheter could not be passed into the left ureter, nor could urine be obtained from that side. Laboratory findings were negative except for a slight secondary anæmia and a leucocytosis of 17,800. The most likely diagnosis was a hypernephroma with liver metastases.

Explanatory operation revealed a very large liver, containing many nodules (apparently malignant metastases). On the left side, beneath the spleen and above the kidney, was a mass the size of a fœtal head. It was apparently cystic in nature. An opening was made in the lumbar region and more than a quart of what appeared to be altered blood was evacuated. The opening of the cyst was attached to the edge of the incision in the back and the abdominal wound closed. The patient died within the first 24 hours.

Post-mortem showed multilocular cystadenoma, with pseudomucin, near the left kidney, precisely of the nature of ovarian cystadenoma. It represented a Wolffian body teratoid cyst. A portion of the cyst showed transition of the cells from a benign to malignant type. Metastases were found in the liver, which was riddled with carcinoma, and also in the spleen, lung, and retroperitoneal and hæmolymph nodes. James H. Skiles.

**Braasch: Clinical Data on Malignant Renal Tumors.** *J. Am. M. Ass.*, 1913, lx, 274.
By Surg., Gynec. & Obst.

The surgical records of St. Mary's Hospital, Mayo clinic, show that 83 malignant tumors of the kidney were operated on up to July 1, 1912. The three cardinal symptoms of renal tumor — hæmaturia, pain, and tumor — were found present in but 32 of the 83 cases. Two of the symptoms were present in 37 cases and but one symptom in 14 cases. It is evident, therefore, that the diagnosis must more often be made with but one or two of the cardinal symptoms. Hæmaturia was present in 64 per cent, was the primary symptom in 36 per cent, and the only symptom in 12 per cent; a positive history of repeated hæmaturia, which alone is valuable, was obtained in only 50 per cent of cases. Microscopic blood in the urine is not of much practical diagnostic value.

In 65 patients, or 78 per cent, a tumor mass could be felt on clinical examination; its existence was known to 28 patients, or 34 per cent of the total; it was the first evidence of disease in 12 patients, or 15 per cent; 37 patients were unaware of its existence, although the majority of them had had more or less medical care previously; and it was given as the only symptom by 5 patients, or 6 per cent. Abdominal pain of varying degree was complained of by 68, or 82 per cent of the patients. It was given as a primary symptom by 27, or 32 per cent, and as the only symptom by 14, or 17 per cent. While dilatation of blood-vessels in the scrotum, bladder, and rectum occasionally occurs with various abdominal tumors, and may then be explained by mechanical pressure, the peculiar frequency with which they are found with renal tumors, together with the venous dilatation in the upper extremities and the common cardiac insufficiency, must be explained by causes other than mechanical. When this condition is suspected the radiograph may show the metastasis providing the bronchial glands are large and favorably situated.

Renal tumor evidently occurs more often in the male than in the female. It was found in 51, or 62 per cent of the males, and in 32 female patients.

Evidence obtained through chemical estimate of decrease in renal function consequent to tumor must be considered with caution. In the 22 cases with operation in which pyelography was employed, recognizable deformity was demonstrated in 17.

The results of nephrectomy were: Operative mortality, 11 per cent; three-year cure, 27 per cent; five-year cure, 10 per cent. The shorter the duration of symptoms prior to operation, the better the prognosis.

**Tisserand: Renal Decapsulation in Acute Toxic Nephritis** (Decapsulation rénale dans les néphrites toxiques aiguës). *Lyon chir.*, 1913, ix, 31.
By Journal de Chirurgie.

The author reports two cases of nephritis with anuria, following mercurial poisoning. In both cases, decapsulation was followed by re-establishment of urinary secretion, but the patients died from the effect of poison.

Case 1. A woman of 25 years had swallowed 2 gr. mercury oxycyanide. The operation was on the fourth day. The patient has been anuric since the moment of the ingestion and showed very marked myosis. Decapsulation of the right kidney was performed. The kidney was very large and very congested. On the first day thereafter, 15 cc. of the urine was passed; on the second, 40 cc.; 120 on the third and fourth; and 300 cc. on the fifth. This urine was albuminous. In spite of the reappearance of the renal secretion, the general condition became progressively worse and death occurred nine days after the ingestion of the poison and five days after decapsulation.

Case 2. Woman of 24 years. Poisoning by sublimate; operation on the tenth day, after five days of anuria. Decapsulation of a very large and congested right kidney. Injection of serum containing glucose. Seventy-five cc. of urine were passed on the day following operation and there were several spontaneous voidings on the following days. Progressive weakness; death six days after decapsulation. At autopsy, the right kidney (decapsulated) appeared normal while the left kidney was gray and congested.

In spite of this double failure, the author believes that decapsulation should be done in toxic nephritis as soon as possible after anuria appears.

Ch. Lenormant.

**Taddei: Typhlo-Ureterostomy after Resection of the Cæcum, and Appendicostomy in the Treatment of Vesicular Exstrophy** (Sur la typhlo-urétérostomie après exclusion du cécum et appendicostomie dans le traitement de l'exstrophie vésicale). *Rev. d. chir.*, 1913, xlvii, 37. By Journal de Chirurgie.

If we admit that the diversion of urine, in the treatment of vesicular exstrophy, is actually the method of choice, it is evident that the deviation into the intestine is the most easily done, and the one which has given the best immediate results. By looking over the results of others the author has found that there is a great frequency of ascending infection from the implantation of the ureters in an infected cavity.

In order to better the technique, we have attempted the resection of the urinary reservoir and have isolated it to prevent the infection of its cavity.

The resections of Borelius and Dowden are incomplete with reference to the above technique.

Complete resections were done by Soubotine, by Hertz-Boyer and Hovelacque and by Cuneo, utilizing the resected rectum, or part of the intestine with the anal sphincter, as the urinary and fæcal reservoir. Taddei criticises the above technique for the reason that it is impossible thus to get a complete control of the urine. He proposes a procedure based upon the complete resection of the cæcum with appendicostomy, followed by the im-

plantation of the ureters in the resected cæcum. The claims for the origin of this technique goes to Verhoogen, who used it unsuccessfully in two cases in 1908.

The researches of Taddei are based upon work with dogs and cadavers. The operation is divided into two steps, done at different times. At the first operation the cæcum is resected and an appendicostomy done; an ileo-colic anastomosis is made with the ascending colon. After some time, with the animal in this condition, the cæcal cavity is rendered aseptic through the appendiceal opening. At a second operation, the bladder is excised. The ureters are removed, leaving a small collar of the vesicular wall at their ends. The operation is done retroperitoneally for the greater part of the time; a part of the lower and inner surface of the cæcum is exposed retroperitoneally. On this retroperitoneal surface of the cæcum the ureters are grafted. They are pulled into the cæcum by a sound which is passed into the cæcum through the appendiceal opening. The two sounds are left in the ureters until there is firm union of the grafts. The capacity of the new reservoir would be sufficient, according to Taddei, and if necessary could at any time be relieved by a Pezzer sound.

We cannot see in what respect this result is superior to those of Cuneo and Marion and Hertz-Boyer, in which cases they were able to get good continence during the day and partial continence during the night.

The work of Taddei on dogs has given him a good opportunity to study the changes if any in the cæcal mucosa from the contact with the urine. He found that there was no metaplasia of the cæcal epithelium to that of the vesicular type.

According to Taddei, this operation would be indicated in patients who have sufficient resistance and in whom the kidneys are intact, in exstrophy of the bladder and in certain cases of irreparable vesico-vaginal injuries. J. Okinczyc.

## BLADDER, URETHRA, AND PENIS

**Chetwood: Contracture of the Neck of the Bladder.** *J. Am. M. Ass.*, 1913, lx, 257.

By Surg., Gynec. & Obst.

The author maintains that while there may be other causes of bladder atony, the chief one is in the nature of circular, sphincteric and prostatic stenosis, causing incomplete and complete retention of urine. This appears in the young as well as in the old. It may occur independent of prostatic enlargement or be combined with it; is sometimes a fibroid stenosis, being mostly inflammatory or, may be confined entirely to the internal sphincter or encroach on the prostatic orifice and include a large portion of this section of the urethra, being amenable to surgical relief by complete excision, preferably by the galvano-cautery or by complete extirpation with the knife.

The author reports one case of this kind which came to him for autopsy in which the urethral orifice was the size of a number 18 French catheter, and also was exceedingly rigid, the urethral orifice having lost all its elasticity. The microscopic examination of this specimen showed chronic and acute perifollicular inflammation.

The treatment of this class of case which the author has used for the past twelve years is the galvano-cautery knife used through a perineal opening. V. D. Lespinasse.

**Keyes: A Case of Carcinoma of the Bladder Controlled by the High Frequency Current.** *Surg., Gynec. & Obst.*, 1913, xvi, 79.

By Surg., Gynec. & Obst.

Keyes reports a case of definitely proven carcinoma of the bladder which, by the use of the D'Arsonval current and later the Oudin current, not only was kept under control but remained apparently cured for 18 months. He lays down the following clinical points relative to the susceptibility of bladder tumors to the high frequency current.

1. A tumor with an indurated base is incurable by burning. (Induration of the base may be determined by rectal examination.)

2. The size and multiplicity of tumors are not decisive elements in deciding against local treatment with high frequency; yet the larger and more numerous the growths, the greater likelihood of their having an indurated base, which forbids the hope of cure by burning.

3. Those tumors covered with extensive sloughing surface are not amenable to cure by burning.

4. Intractable cystitis is the most striking contraindication to cauterization. J. S. Eisenstaedt.

**Werthern: Suture of the Bladder after Lithotomy in Children** (Ueber Erfahrungen mit der Blasennaht beim hohen Steinschnitt an Kindern). *München. med. Wchnschr.*, 1913, lx, 134.

By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

In children with vesical calculi the author recommends complete closure of the bladder by suture as the quickest and most convenient method of healing after the high operation. Open treatment is warranted only if the bladder is severely inflamed and gangrenous. The after treatment and healing is on an average quicker in the sutured cases, even if a small urinary fistula should appear, as this always healed spontaneously where the bladder has been sutured. During the operation and after, to test its integrity, the bladder is always irrigated with boric acid and hydrogen peroxide solutions. The suture of the bladder is double and continuous, and drainage is maintained for from 8 to 14 days with a thick self-retaining catheter through a small incision made upon a curved dressing forceps, which is pressed against the perineum from within. Such direct free drainage guarantees constant emptying of the bladder and easy and thorough cleansing from shreds of tissue or coagulated blood. The small urethrotomy wound always heals spontaneously, even after a longer drainage. Nitzsche.

**Geissler: The Value of Gonosan in the Treatment of Urethral Gonorrhœa** (Ueber den. Wert des. Gonosans bei der. Behandlung des. Harnröhrentrippers). *Reichs. med. Anz.*, 1913, xxxviii, 35.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The author used gonosan with the usual Janet douches and protargol in cases of gonorrhœal and non-gonorrhœal urethritis. Purulent discharges soon became mucous; in one case after 7 days' treatment, but on an average after three weeks. The gonococci disappear in 4 weeks usually, whereas without the use of gonosan it took 12 weeks in one case, with 8 weeks as the average. A case of gonorrhœa treated with gonosan averages 6 weeks, while those treated without it average 10½ weeks. Complications occurred only when gonosan was not used; 4 cases of epididymitis and one of cystitis occurred in the series. Burning on urination disappears after a few days with the use of gonosan. It should be given early. In old cases one should not expect much. VON MILTNER.

**Bruck: The Treatment of Gonorrhœa and Its Complications** (Die Behandlung der Gonorrhöe und ihrer Komplikationen). *Therap. Monatsch.*, 1913, xxvii, 1.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

The diagnosis of gonorrhœa cannot be made exclusively clinically, i. e. from subjective symptoms, the presence of secretion, opacity of urine and so on, but has to be made etiologically too, by the proof of the presence of gonococci; only thus can the course and the influence of the treatment be controlled, and only in this way can a genuine gonorrhœa be differentiated from a postgonorrhoic urethritis. The author establishes as a basis for the modern treatment of gonorrhœa the following: (1) Destruction and definite removal of the gonococci, if possible without increase, but certainly without removal of the inflammation and secretion of the mucosa (bactericidal therapy); (2) after definite removal of the gonococci, combating the remaining clinical symptoms (astringent therapy). The bactericidal therapy is applied best by silver-albumin preparations, from which, according to a chart by Liebert, even in very weak solution destruction of the accessible gonococci may be accomplished in a short time. These silver-albumin preparations not only possess this strong gonococcicidal power but also a marked remote influence, since they contain the silver "masked," thus not combining with the fluid of the tissues. Silver-albumin preparations possess no astringent properties to counteract the inflammatory activity in the mucosa, which must be thought of as naturally prophylactic. The principles for the modern treatment of gonorrhœa are therefore: (*a*) No antiseptic treatment; destruction of the gonococci on the surface and if possible deeper, without aggravating tissue reaction-protargol argonin, etc. (*b*) A mild antiseptic astringent treatment; destruction of the remaining gonococci and moderate reduction of the inflammation by silver nitrate, ichthargan, albargin, or argentamin. (*c*) Concluding with a purely astringent therapy-zinc sulphate, bismuth, or alum. A new antigonococcicide is hegonon, recommended by Klingmüller and said to be superior to protargol. Another is argenti proteinic (Heyden), the good results of which Oppenheim is praising. Treatment with electromophor and thermopenetration is as yet of doubtful value. Internal treatment with balsam copaiba is of slight benefit and exclusively internal treatment must be considered as an error.

In conclusion, the chemotherapy lately employed by the author and Glück is mentioned, the theory of which is that silver solutions combine with strongly diffusing substances by which the silver is carried to the submucosa. When no result is obtained the fault is a biologic one, an immunity to silver on the part of that group of gonococci concerned having been acquired during the treatment. A second report is promised after further experiments.

LREBICH.

**Lothrop: Treatment of Hypospadias.** *Boston M. & S. J.*, 1913, clxviii, 48. By Surg., Gynec. & Obst.

Cases presenting a congenital deficiency in the floor of the urethra are divided into three groups: (1) The glandular type, which is most common and generally left untreated because there is no interference with the functions. (2) The penile type, which presents functional disturbances varying according to the location of the meatus. The nearer the meatus to the penoscrotal angle, the greater the disturbance of functions and the more probable penile deformity. (3) The scrotal type, which is rare and in which there is great deformity and most serious functional disturbance. The deformity makes coitus impossible and the location of the meatus keeps the adjacent parts irritated from frequent wettings with urine.

*Treatment:* The glandular type is so unimportant and the scrotal type is so rare and its attempted relief so unsatisfactory that only the penile type will be considered here. The author uses the flap operation described by Thiersch in 1869 for the treatment of epispadias and adapted later by Anger for cases of hypospadias with slight modifications required by the exigencies of each case. The flaps should be handled with delicate hooks and forceps so as to avoid unnecessary injury. If it is necessary to straighten the penis this operation should be done six months or so before attempting to correct the urethral deficiency. The straightening process is accomplished by making transverse incisions through the tissue below, between and extending into the corpora cavernosa. The penis is then extended so as to open the wounds and the opposite ends of the incisions are approximated and sutured longitudinally. The formation of the new urethra is accomplished by making two flaps with the penis in an extended position. The meatus is enlarged as a prelimary operation if necessary. The base of the first or smaller flap is parallel and

close to the line of the deficient urethra. The flap is of sufficient extent to fold back over a rubber catheter inserted into the bladder and left for 7 to 14 days. The second or larger flap has its free border parallel and alongside the line of the deficient urethra but on the opposite side. This is made large enough to reach across the new urethra and cover the area denuded by the first flap. The second flap should be made as thick as the tissues will allow and enough broader to lap over the anterior and posterior borders of the first flap. Frequently the catheter will require to be changed, according to circumstances. Sometimes a minor operation will be required later to close the small fistulæ which sometimes persist in the vicinity of the original meatus. Mattress sutures of fine silkworm gut, wire, or horsehair are placed so as to hold the short flap in place over the catheter and draw the larger flap snugly into place over all. Usual dressings are applied. A moderate amount of œdema must be expected, careful attention must be paid to the wound during convalescence, and the catheter must be kept in perfect order and should be retained until the wound is healed. H. D. Orr.

**Scholtz: Modern Diagnosis and Treatment of Chancroids.** *Urol. & Cutan. Rev.*, 1913, xvii, 27.
By Surg., Gynec. & Obst.

The author gives in detail the differential diagnosis and the modern treatment of chancroids. He mentions two new methods of treatment not mentioned in the text-books, which he describes as, first, the X-ray treatment, and second, the employment of radiant heat by means of the leucodescent lamp.

Scholtz is inclined to believe that modern clinicians are prone to slight this important malady, considering it so trite as not to warrant much attention, but he strongly emphasizes the fact that "chancroid is by far not a closed chapter in medicine, either theoretically or clinically, and deserves a greater attention at the hands of the profession than it has been granted heretofore." He brings out the differential diagnosis between chancroid and herpes progenitalis, infected balanoposthitis, chancre, mixed infection, syphilitic flat condylomata, cutaneous gummata, epitheliomata and tubercular ulcer. The exact diagnosis in many cases can be made only after bacteriological search for spirochæta pallida and streptobacillus of Ducrey-Unna.

Among chemical cauterizing agents for chancroids, fuming nitric acid and pure carbolic acid are to be recommended; for active cauterization, the Paquelin or galvanic cautery is to be preferred. The use of silver nitrate and copper sulphate he most emphatically condemns. Among the antiseptic powders, iodoform, aristol, and iodol are best employed.

In all, 11 cases were treated by X-ray. All cases were of the phagedænic variety, which resisted all kinds of cauterization and antiseptic applications for more than two or three months. Scholtz does not recommend that so powerful a therapeutic agent be used in the mild average case; he reserves same for the rebellious and serpiginous variety. The author reports rapid improvement in all his cases except one. This case not only did not improve, but actually grew worse. Seven cases were complicated with phagedænic buboes, one of the cases being bilateral. In 6 cases two ray exposures were necessary at one week's interval. In 3 cases one exposure was sufficient to bring about recovery. The X-ray exposures were as follows: strength of the current, 2 milliamperes; distance from the tube, 6 inches; duration of treatment, 10 minutes; exposure amounted to so-called half-erythema dose.

The second method advocated by Scholtz, namely, radiant heat by means of a 50 candle power therapeutic leucodescent lamp, was used on a few cases. The author does not mention the number, but cites one particular case of a man of 26 years who had two chancroids that resisted all manner of treatment and upon which, as a last resort, he tried "radiant heat." The result was that "a healthy reaction asserted itself after the very first exposure, and after ten exposures the ulcer had a healthy granulating surface rapidly undergoing epithelization." It is advised that, with this 50 candle power leucodescent lamp, daily exposures be given, of ten to twenty minutes, at a distance of six to twelve inches.

H. W. E. Walther.

## GENITAL ORGANS

**Legueu: Diffuse Perivesicular Abscess of Prostatic Origin** (Le phlegmon diffus périvésical d'origine prostatique). *J. d'Urol.*, 1913, iii, 1.
By Journal de Chirurgie.

The observations which Legueu published have brought to light many interesting facts about the pathological anatomy connected with the infiltration of urine. The infiltration of urine from the superior quadrant and the diffuse perivesicular abscess arising from the prostate had, up to the present time, never been observed with such accuracy and explained upon pathological findings. The descriptions were more or less theoretical.

The patient upon whom these observations are based entered the hospital with a diffuse perineal abscess. Because of long standing infiltration of urine, the tumor mass extending to the anus and scrotum, soon involved the tissues above the pubis and groins altering greatly the normal landmarks.

Upon making large multiple incisions the local condition was greatly improved, but the patient's general state remained poor and he gradually grew worse. He died on the eleventh day after entering the hospital.

Autopsy showed the following interesting conditions.

1. A urethral narrowing with displacement due to the infiltration.

2. A chronic suppurating prostate, anterior to the perineal infiltration, which completely destroyed the prostate. The mass had perforated into the

membranous urethra; the remaining part was unimpaired.

3. A diffuse perivesicular abscess. The whole bladder was involved in a zone of serous or seropurulent infiltration, which involved the subperitoneal tissues. Behind, above the seminal vesicles, there was a large œdematous mass, which extended the height of the bladder and made a large tumor mass which protruded into the cul-de-sac. To the right and left of the bladder, the perivesicular tissues were similarly infiltrated and œdematous. The infiltrating substance was more purulent in the dependent parts and more serous near the surface. The infiltration did not extend into the anterior perivesicular tissues. The anterior vesicular ligaments formed a barrier against the prostatic infection.

We are thus dealing with a serous or seropurulent pericystic, that is to say, a diffuse peri-vesicular abscess, and an infiltration of urine from the superior quadrant.

The prostatic abscess was the starting point for the double infiltration, superior and inferior. Somewhat similar cases have been reported (Motz and Bartring, Thévénot and Michel). This observation proves the possibility of infiltration of urine from the superior quadrant.

The author draws the following conclusions. First, clinically: There is the necessity of thoroughly familiarizing ourselves with the state of the prostate and surrounding tissues in a patient suffering from infiltration of urine, since the general condition of the patient remains poor during the gradual progress of the infiltration to the surface.

Second, therapeutically: Considering that similar infections are not beyond surgical assistance, these abscesses can be opened by the perineal route for the purpose of draining the prostate, the starting point of the infection. Another drain is inserted by the suprapubic route, exposing the prevesicular space through a point in the midline. This drains chiefly the lateral parts of the bladder. J. Tanton.

**Lowsley: The Human Prostate Gland at Birth; with a Brief Reference to Its Fœtal Development.** *J. Am. M. Ass.*, 1913, lx, 110.
By Surg., Gynec. & Obst.

This work shows conclusively that the prostate is developed from five centers or lobes—the anterior or ventral, posterior, middle and two lateral. The posterior lobe forms the apex of the prostate and is quite distinct from the rest of the gland. This fact is of considerable surgical importance to those performing perineal prostatectomy. The number of tubules opening into each varies from fifty to seventy-four with an average of about sixty-three. The author also calls attention to two groups of tubules which may be called accessory prostates, one of these being in the floor of the urethra just outside the bladder and the other being in the trigone of the bladder just inside the urethral orifice.
V. D. Lespinasse.

**Young: A New Procedure (Punch Operation) for Small Prostatic Bars and Contracture of the Prostatic Orifice.** *J. Am. M. Ass.*, 1913, lx, 253.
By Surg., Gynec. & Obst.

The punch operation, done by means of a special instrument devised by Young, is in this article first placed before the profession in an extended way. The punch is a modified urethroscope with a slot cut out of its under side. After the obstruction is engaged in the slot a cutting mandarin is inserted which cuts off all the tissue inside the slot. Three cuts are usually made—one median and one lateral on each side. It is an operation applicable to prostatic bars and small obstructions in the posterior urethra and trigone of the bladder. One would imagine that this operation would be followed by severe hæmorrhage; but Young overcomes this hæmorrhage by means of a two-way catheter put in place immediately after the operation, and irrigation through the catheter for 24 or 48 hours.

The operation is applicable in the following types of cases: bar of contracture of the vesical orifice; prostatic bar of contracture with diverticula; prostatic bar of contracture with vesical calculus; prostatectomy cases with incomplete results; median bar with trigonal elevation and obstruction.

This operation has given excellent results in the hands of its originator and a few others who have performed it. It is an operation which must be restricted to certain types of cases. It seems to be the safest and surest procedure which has yet been introduced. V. D. Lespinasse.

**Plondke: Surgery of the Prostate, with Special Reference to Preparatory Treatment and Anæsthesia.** *St. Paul M. J.*, 1913, xv, 1.
By Surg., Gynec. & Obst.

The author estimates that 33 per cent of all men over 50 years of age suffer from enlarged prostate, that 10 per cent of these require treatment, and that catheter life results in 100 per cent mortality within an average period of four years. Arteriosclerosis and resultant diseased condition of the various organs usually go hand in hand with hypertrophy of the prostate. Before any operative procedure is attempted, the existing diseased conditions are carefully investigated and appropriate treatment employed. Special attention is given to the infected bladder, which is cleansed thoroughly several times daily with normal salt or boric acid solution. This is followed once a day with a half ounce of 5 per cent solution of argyrol, allowing it to remain in the bladder, thus sterilizing the residual urine. When the infection is severe and the urethra very sensitive, a large size trocar is plunged into the previously distended bladder above the pubis; the bladder is examined and treated through this opening. Nitrous oxide, if administered by an expert, should be the anæsthesia of choice; otherwise ether should be used. Chloroform is too irritating and depressing. Where a general anæsthetic is contraindicated, spinal analgesia with stovain is

recommended. The choice of operation is left to individual preference, but the surgeon must always remember that the patient should be in the best possible condition; he should receive the smallest possible amount of anæsthetic, and the operation should be finished in the shortest possible time.

**Freyer: One Thousand Cases of Prostatectomy.** *Am. J. Dermatol.*, 1912, xvi, 627.
By Surg., Gynec. & Obst.

The author reviews his series of 1000 prostatectomies. Three of his four cases reported eleven years ago are still alive and free from urinary troubles. Average age of patients operated upon was 69, the oldest being 90 and the youngest 49. The weight of the prostates removed varied from one-half ounce to seventeen ounces. Among the various complications noted were cystitis, calculus, pyelitis, kidney disease, heart disease, thoracic aneurysm, chronic bronchitis, paralysis, various forms of hernia, hæmorrhoids and cancer of some organ other than the prostate. There were 55 deaths, or a mortality of 5½ per cent. Causes of death, as given, were uræmia, heart disease, shock, exhaustion, sepsis, mania, malignant disease of the liver, bronchitis, pneumonia, heart stroke, pulmonary embolism, cerebral hæmorrhage and pancreatitis.
HERMAN L. KRETSCHMER.

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[**Monograph**]—**Kleinschmidt: Urinary Secretions; Their Physiography and Pathogenesis** (Die Harnsteine; ihre Physiographie und Pathogenese). Berlin: J. Springer. By Surg., Gynec. & Obst.

In this interesting monograph the author takes up the pathogenesis and physiography of the urinary concretions. He felt dissatisfied with the prevailing theories, mainly for the reason that the investigation of the chemical compositions had not been thorough enough. While in a general way the chemical nature of the constituents of urinary calculi has been known, a systematic quantitative analysis was lacking. With the idea of supplying this knowledge the author examined 56 calculi, laying particular stress on the examination of the various layers of composite concretions, and thus gaining authentic information about the nature of the nuclei of the various concretions. The essayist presents the whole problem in the form of the following questions:

What rôle does the organism play in the formation of concretions?

What are the primary causes of the formation of the various concretions, and what are the last exciting conditions for the appearance of the sediments and the calculi?

Is it possible to determine the genesis of the calculi from their structure, and is it possible to supplant by a genetic one the mere descriptive division of the various concretions?

In order to answer these questions the author made a series of cuts through the stones at his disposal, which cuts were ground down to extreme thinness, in this way permitting an insight into their finest structure and a chemical analysis of the constituents of their different layers. He compared the results of his investigations with the products of a thorough analysis of the prevalent theories, and arrived in this way at conclusions that are apt to shed a new light on our conception of the pathology of urinary concretions.

So far, Ebstein's theory has been generally accepted; he found that every urinary concretion contained an organic basis or skeleton, and he considered the formation and presence of this organic skeleton an indispensable premise for the formation of any urinary concretion, a condition sine quâ non. Kleinschmidt shows now that the organic basis of the urinary concretions is not a specific coagulating substance secreted by the uropoietic system, but that in most of these cases the albumin normally present in the urine is in very faint traces, and that it becomes only traceable and visible in the course of precipitation of the crystalloids. If, occasionally, the normally low percentage of the urinary albumin happens to be increased by inflammatory processes, these pathologic albuminates will participate in the formation of the organic skeleton, being dragged down by the precipitating crystalloids in the same way as is the normally present albumin; but if such pathologic albuminates should precipitate like fibrin, then they can no longer be used for the formation of calculi but will lead to incrustations like any other necrobiosing and coagulated tissue arrested in the urinary system. This becomes apparent if one considers that so far none of the morphologic or tinctorial examinations has shown that a fibrinogenous substance is the organic stratum of urinary concretions.

Furthermore, while in the stones that Schade produced in the laboratory the coagulated fibrin determined the form of the concretions, and, after the artificial dissolution of the crystalloids, the fibrinous skeleton became distinctly visible again, in the genuine urinary concretions the structure is determined by the specific nature of the crystalloids, depending on the laws that are governing this particular crystallization.

Therefore we have to conclude that the so-called organic skeleton is not a primary formation nor an essential premise for the building up of urinary concretions, but simply a concomitant incidental phenomenon. After it was once demonstrated that the Ebstein theory based on the conception of a specific organic basis for the formation of urinary concretions became untenable, there remained as an essential factor for the formation of these concretions only an excess of the saturation with stone-building substances of the urine. In this connection there is to be considered the primary formation of

concretions that may form the nucleus for an appositional growth of large concretions and the conditions that will lead to this secondary stone formation, which event may occasionally give rise to the building up of calculi whose various layers contain different "stone-builders."

The nuclei are most frequently composed of uric acid, due to uric acid infarctions. Ebstein's theory that these infarctions are formed by the necrosing of the tubular epithelia under the toxic influence of the uric acid, and that they then become impregnated with the latter, is repudiated by the essayist in conformity with the results of Aschoff's and of his own investigations. Both authors were able to demonstrate that the flooding of the blood with uric acid in animal experiments suffices to produce an infarction analogous to the infarct observed in the human being. We are therefore compelled to ascribe the formation of the infarct to the excessive and sudden elimination of uric acid. As a matter of fact, the elimination of the uric acid is much greater in infants than in adults.

If the crystallization of the uric acid occurs in the bladder, and if no previously formed nucleus be present, then, provided the bladder function is sufficient, these crystals will be voided without difficulty as uric acid gravel. In case the emptying of the bladder is incomplete, for instance in prostatic hypertrophy, crystals will be retained and may give rise to calculus formation. If a nucleus is once formed in the bladder and remains there, additional crystal will precipitate upon it, and the final result will be the formation of many layers of a secondary stone.

It is, of course, obvious that after a nucleus is once established, chemically different layers may be precipitated on it if an oversaturation of the urine with other stone-builders occurs; for the formation of phosphates an alkaline reaction of the urine is necessary, which condition may be brought about either by bacterial influence or by the effusion of blood into the urine, both of which conditions may result from traumatism inflicted on the bladder wall.

As a final result of his investigations Kleinschmidt arrives at the following division of the urinary concretions:

1. Non-inflammatory stones: (*a*) primary formation of a concretion — formation of a nucleus; (*b*) secondary formation of a concretion — formation of layers.

These primary calculi are formed through the increased elimination or abnormal precipitation of a stone-building substance, which condition may be of a transitory character only. To the secondary stones of this group belong all those concretions that are formed in a normal urine around a nucleus. To the non-inflammatory stones belong the uric acid stones, the xanthin, the cystin, the calcium-oxalate, and the calcium.

2. Inflammatory stones: (*a*) primary stones; (*b*) secondary formation of stones — formation of layers — combination stones.

For their formation the same conditions as mentioned for Group 1 hold good, except that an additional factor as to their growth is present, viz.: inflammation of the urinary system in one or all of its parts. As the stone-building substances are to be considered phosphatic ammonia-magnesia, ammonium murate, and calcium carbonate, uric acid is found to be the substance which most frequently forms the nuclei; more rarely nuclei consisting of xanthin, cystin, oxalates, or phosphates are found.

All inflammatory stones have their origin in bacterial infection and in the subsequent ammoniacal fermentation of the urine. The author concludes that the divergent theories concerning the etiology of stone formation as propounded by surgeons and pathologists may be explained by the fact that the stones examined by surgeons will of necessity be inflammatory in nature, since they give rise in the majority of cases to rather pronounced clinical symptoms, while those examined by the pathologists will in the vast majority of cases be uric acid stones, according to the greater general frequency of their occurrence.

HERMAN L. KRETSCHMER.

# SURGERY OF THE EYE AND EAR

## EYE

**Aizner: Operation for Ptosis with Free Transplantation of Fascia** (Zur Ptosisoperation mit freier Fascientransplantation). *Zentralbl. f. Chir.*, 1913, xl, 153. By Zentralbl. f. d. ges. Chir. u. i. Grenzgeb.

The author employed free transplantation of fascia for the removal of a ptosis of the left upper eyelid. The flap was taken from the thigh. Union with the upper tarsal border and the frontal muscle was obtained by making an incision and undermining the skin. The result at first was not very good, so that correction was considered. One half year after the operation it was found that the left palpebral fissure was larger than the right, and that the upper lid could not be closed conpletely. These changes were traced to shrinkage of the aponeurotic flap, which when the eye was closed could be distinctly felt in the form of a tense band. The case shows that transplanted fascia has a tendency to shrink, and that this tendency must be reckoned with in transplantation. HOHMEIER.

**Metz: Vernal Conjunctivitis.** *Cleveland M. J.*, 1913, xii, 29. By Surg., Gynec. & Obst.

Spring catarrh is a chronic affection of the conjunctiva, most commonly bilateral. No portion of the conjunctiva is exempt from involvement in the process, though it is rare to find in one case the participation of the whole membrane. More usually the affection of the tarsal or the bulbar conjunctiva is more prominent.

Hypertrophy of the limbar conjunctiva occurs generally on one side of the cornea and is semitransparent, of pinkish or brownish color, and of gelatinous appearance. The surface may be smooth or uneven. There are small whitish or yellowish white spots in this pericorneal hypertrophy appearing, with the loupe, like white colonies of microbes on a gelatin medium. They stain with fluorescin and are considered by Herbert and Trantas as characteristic of spring catarrh. They are minute epithelial vesicles caused by a degeneration of the epithelial downgrowths, which become absorbed, leaving cystic cavities.

The change in the conjunctiva of the upper lid is characterized by the formation of hard flat papillæ which are greatly projecting, pale, and sharply outlined. They are tessellated or pavement-like in appearance and over the whole is a milky opacity. The papillæ may be very small and appear with the loupe only as knuckles of vessels. The epithelium of the papillæ of the tarsal conjunctiva is thickened, and epithelial plugs descend some distance into the stroma, though the basement membrane is always intact.

The secretion is usually scanty, mucous or mucopurulent, and characterized by the large number of eosinophile cells in proportion to the total number of wandering cells. The downgrowths are constantly being absorbed, and the cavities thus formed are filled with eosinophiles which are erupted at the surface. If the lid is held everted a scanty, thin, filmy exudate will be formed on the conjunctiva.

The duration of the disease is from 3 to 20 years.

Theories as to cause include atmospheric heat, ultraviolet rays, and bacteria. Protection against the first two plays an important part in the treatment. EARLE B. FOWLER.

**Cohen: The Clinical Course of Conjunctival Affections Associated with So-Called Trachoma Bodies.** *Arch. Ophth.*, 1913, xlii, 29. By Surg., Gynec. & Obst.

Cohen submits further data to prove that the so-called trachoma bodies are the etiological factor of a conjunctivitis independent of trachoma, as hypothecated in an article two years ago by Noguchi and himself. Twenty-one of their first series of cases were followed. These are stated to have infected and caused 41 other cases; 10 trachomata caused 19 others; 6 blenorrhœa neonatorum non-gonorrhoica caused 2 others; 6 blenorrhœa gonorrhoica in young girls caused 20 others.

The transmitted disease simulated trachoma for a time only; the course was shorter, more acute, and without subsequent scar formation and pannus. The so-called trachoma bodies were present from 2 to 9 months. Follicular and papillary stages were present. Restoration to normal usually required 3 to 4 months, in one case 9 months.

The 6 blenorrhœa neonatorum non-gonorrhoica cases came on 4 days to 2 weeks after birth, resembled mild cases of gonorrhœa, became a finely papillary conjunctivitis after one week, regressed along with the gradual disappearance of the bodies in about 2 months and the conjunctivæ were normal in 3 to 4 months.

In all the 6 original cases of blenorrhœa gonorrhoica in young girls and in the 20 cases arising from them, gonococci were found along with the so-called trachoma bodies, "but the irregularity of their discovery and the inconstancy of their occurrence were noteworthy." In the original 6 cases the vaginal secretions showed gonococci but no bodies at first. In most cases the conjunctiva became normal in 3 to 4 months.

The author contends that true trachoma cannot exist in such a mild form, and that blenorrhœa neonatorum non-gonorrhoica associated with "trachoma" bodies is not trachoma, because (1) infec-

tion could only occur through the maternal genitalia, (2) it does not resemble trachoma clinically, and (3) there is spontaneous cure without sequelæ. In blenorrhœa gonorrhoica in girls the bodies have only become engrafted on the gonorrhœal disease.

Final proof cannot be brought until the organism can be cultivated. FRANCIS LANE.

**Credé-Hörder: Non-gonorrhœal Ophthalmia Neonatorum** (Ueber nichtgonorrhöische Ophthalmoblennorrhöen der Neugeborenen und Säuglinge). *Deutsche med. Wchnschr.*, 1913, xxxix, 74.
By Zentralbl. f. d. ges. Gynäk. u. Geburtsh. s. d. Grenzgeb.

Many cases of ophthalmia neonatorum are not of gonorrhœal origin. Yet even with careful treatment these may run a slow course, though there are in most cases no serious results. The clinical aspect is about the same as in Neisserian infection, agglutination of the eyelids, reddening of the palpebral fissure, serous or purulent secretion, and reddening of the conjunctiva. The cornea is never affected, the secretion is but slight and is more serous in nature. The microscopic examination shows only leucocytes and a few epithelial cell bacteria of various kinds being found, but only few in number, mostly diplococci, gram-positive in one case, typical pneumococci running a very obstinate course. In three mild cases of short duration, thick plump rods of 2 to 3 were found, intracellular or in the field between the leucocytes. The author calls these bacilli coli commissuris, and gives detailed report of the bacteriology. The clinical course depends on the producing agents. Blennorrhœa caused by gram-positive diplococci is mostly late, appearing usually on the sixth to the sixteenth day of life. The secretion is almost always serous, and can be stopped within 8 to 10 days by cleaning with a solution of boric acid. Relapses are frequent. Far more severe are the pneumococcal infections which set in on the eighth day with redness and swelling, becoming serous on the second day, purulent on the third day, and slightly sanguinous on the fourth. Œdema was marked. Treatment consisted in irrigating with a solution of boracic acid and on the first and fifth day in the installation of 1.3 per cent argentum aceticum. The eye which was first affected was cured after 16 days, the second not clearing up for 10 days more. The three cases which were caused by the bacillus coli appeared on the fifth, seventh and eleventh days, respectively, after birth and lasted from four to nine days. The infection was confined to one eye, the secretion being serous or slightly purulent. These cases were irrigated with boric acid solution. Treatment must be persisted in, since these infections, while never dangerous to the sight, if neglected may develop into chronic conjunctivitis.
ZWEIFEL.

**Jess: On the Chemistry of Senile Cataract.** *Arch. Ophth.*, 1913, xlii, 45. By Surg., Gynec. & Obst.

The author discusses a new albumin reaction first observed by Heffter with egg albumin, and which could not be obtained with serum albumin, fibrin, egg-globulin, keratin or pepton. This is a red coloration resulting from the use of sodium nitroprusside and ammonia.

Arnold later found this test to be positive in a series of animal as well as plant albumins. The proteid substance of most of the organs (liver, thymus, muscle) reacted positively, whereas connective tissue and the albumin contained in the excretions and secretions did not give the reactions. The reaction was less strongly marked in the albumin of plants, and was most strongly marked in the lens of the eye. Arnold, as well as Heffter, considers the red coloration to be due to the presence of the cystein group in the albumin molecule, for of all the amino-acids in albumin cystein alone becomes red with sodium nitroprusside and ammonia.

Reis was able to prove that in the normal lens there was no difference in the behavior of the peripheral and central layers with the cystein reaction. In senile cataract the reaction disappears entirely or in part, whereas a traumatic cataract reacts like a normal lens.

Red coloration was entirely wanting in a hypermature cataract, while in a mature cataract it was absent or only faintly present in the nucleus, and was a trifle more marked in the cortex. In immature cataract the cortex reacts plainly, and in some cases even the nucleus reacts.

Reis separated the cortex from the nucleus and examined each for cystein by rubbing up some of the lens material on tissue paper with a spatula and pouring over this a few drops of a 4 per cent sodium nitroprusside solution and then a few drops of ammonia.

Jess gives his finding in a few cases. He also isolated in 120 cows' lenses and in 36 normal human lenses the B-Kristallin and a-Kristallin, and got an a-Kristallin free from albumin which still gave a strong positive reaction. He says the most interesting point of the entire examination, and for the understanding of senile cataract the most important, is the complete absence of the reaction in that albuminous body which is insoluble in water and which constitutes about one half of the entire albumin content of the normal lens.

In agreement with Michel and Wagner he found the amount of soluble albumin in senile cataract to be diminished. As it is just these forms of albumin, namely, a-Kristallin and especially B-Kristallin, which do not give this reaction, the negative result of the nitroprusside-ammonia reaction in senile cataract is explained very simply by the more or less complete loss of the soluble albuminous material.
C. H. DARLING.

**Rogers: Observations Concerning Foreign Bodies Within the Eye or Orbit.** *Ophth.*, 1913, ix, 153. By Surg., Gynec. & Obst.

The author's observations are based upon 116 cases which were subjected to operations with vari-

ous types of magnet, and show that while the portable magnet with its point within the globe gives a lower percentage of failures to remove a foreign body than the giant type, its functional results are inferior, and it yields a higher percentage of eyes ultimately lost from degenerative reaction. There were 12 cases in which the giant magnet alone was used, and in none of these was visual acuteness after operation less than before; 7 cases in addition, in which closure of the original wound was the only reason for combining the auxiliary magnet, did not alter these results except when inflammatory reaction had developed before the operation.

A giant magnet of less than 10 amperes capacity is a pitfall rather than a dependence; but an appliance of this power is not to be used carelessly, and unless the injunctions of Haab are followed in regard to the gradual increase of force and direction of the line of traction, disappointment will surely result. Forty to fifty minutes are often required to bring a small foreign body properly into the anterior chamber. It is not well adapted to the removal of large bodies or small encapsulated substances.

Perhaps the most valuable deduction from this series of cases is the evidence that a much larger percentage of these foreign body cases should be subjected to immediate enucleation instead of embarking upon the tedious convalescence and false security involved by the extraction of large foreign bodies or foreign bodies with extensive traumatism. The author has never succeeded in preserving useful vision when the ciliary zone has been extensively lacerated with much loss of vitreous, or when the foreign body has had a total area approximating 10 mm. In any case, if ciliosis persists for more than three months, enucleation is advisable in an individual dependent upon his occupation for his maintenance.

It was somewhat surprising to note in the discussion connected with the presentation of this paper some tendency to disregard the necessity of X-ray localization before undertaking removal.

**Stover: Röntgenography of Foreign Bodies in the Eyeball.** *Ophth.*, 1913, ix, 178.

By Surg., Gynec. & Obst.

The article deals in a general way with the value and methods of using X-rays in the diagnosis of foreign bodies in the eye. Most foreign substances which are likely to be lodged in the eye are capable of demonstration and recognition if sufficient skill and experience are employed. Among the bodies of lesser density which are visible on only the most perfectly executed Röntgen plates is glass of the thinness usually seen in incandescent bulbs.

The matter of accurately localizing foreign material which shows on the test plates is of exceedingly great importance, since in a given case it may mean the saving or the loss of an eye. Sweet's method has been adopted by the author as a basis for his work. By citing a number of cases in which mistakes have been made by oculists in ignoring the value of X-rays or in depending upon the results of incompetent workers, the need of mathematical precision in technique and guarded acceptance of the localization by a radiologist of unknown ability is made clear.

Hollis E. Potter.

**Ormond: The Eye in Relation to Tuberculosis.** *Practitioner*, 1913, xc, 250.

By Surg., Gynec. & Obst.

It is Ormond's experience that the majority of patients who have had proved tuberculous lesions of the eye have been robust, healthy-looking people. The tubercle bacillus attacks the ocular tissues much oftener than was supposed before the use of Koch's, Calmette's and Von Pirquet's tests.

Tuberculosis of the conjunctiva is an infective granuloma which most commonly presents itself as an extensive ulceration involving the fornix and palpebral conjunctiva. In the early stages miliary tubercles may be seen, but these soon break down, run together, and form a conglomerate mass partially ulcerated, with outlying tubercles and thickened œdematous areas together with hypertrophic granulations. An ulcer of this description, hidden as it is in the loose folds of the conjunctiva, may only draw attention to its existence by a slight fullness of the lid, with watering of the eyes.

The preauricular gland is involved early. This ulceration of the conjunctiva is most frequently found in young people at or near the age of puberty. An absolute diagnosis of tuberculosis of the conjunctiva can only be made by bacteriological examination. Phlyctenular conjunctivitis is not tuberculous, but is probably due to tuberculous toxæmia. A chronic iritis, with few inflammatory symptoms and without an obvious etiological factor, should arouse suspicion of the tubercle bacillus being a possible cause of the condition. A typical case shows the presence of tubercles in the iris, generally on the anterior surface near the papillary or peripheral margin. Tuberculous iridocyclitis is usually chronic, with slight redness, slight pain, and slight watering of the eyes. The interference to sight is greater when the ciliary body is involved than in iritis alone. The tuberculosis of the choroid associated with tuberculous meningitis has been well known for years, but of late, in choroiditis of doubtful origin, laboratory tests have given positive reactions and tuberculin treatment has in some cases given good results. In tubercular keratitis the whole cornea is never involved. It is characterized by the denseness, whiteness and patchiness of the infected area in which the small islands of opaqueness appear. These generally are situated at the periphery, and are whiter than those due to syphilis; the surrounding cornea is perfectly clear.

It is possible for the lachrymal sac to be the site of a primary tuberculous invasion, but that is of rare occurrence, being more common secondary to infection of the nasal mucous membrane. In ocular tuberculosis, general treatment is of the greatest

importance. The large ulcers of the conjunctiva should be kept as clean as possible, the eyes being washed out three or four times a day with iodine water, the surface of the ulcer scraped, and iodoform powder dusted on. If the preauricular gland or supraparotid glands are softening, they should be opened and curetted. Tuberculin should be used, an injection of .0002 mg. being given every 10 to 14 days, the temperature being taken and the general effect and pain being noted after each injection. In iritis 1 per cent atropin and an iodine solution should also be used. Ormond has been pleased with the improvement in corneal opacitus, the result of tubercular keratitis following the use of injections of air or oxygen under the conjunctiva. Before the advent of tuberculin treatment many surgeons maintained that intraocular tuberculosis necessitated removal of the eye. It is, however, rare for intraocular tuberculosis to be primary, and general dissemination rarely happens; many cases happily resolve under treatment. Excision is justifiable if the condition steadily grows worse under treatment and the general health is being undermined by the local condition. A shrunken phthisical eye should be removed, care being taken to prevent general dissemination of the bacilli present, which might follow the opening of the globe or the cutting into any caseous masses in the orbit. C. G. DARLING.

**Friedenberg: Visual Symptoms of Accessory Sinus Disease.** *Ophth.*, 1913, ix, 186. By Surg., Gynec. & Obst.

Many symptoms of progressive sinusitis and almost all of the serious complications are ocular or orbital in character. On the other hand, careful special tests of visual function may establish a diagnosis of accessory sinus disease before nasal symptoms have become sufficiently marked to attract attention. In many cases the oculist is the first one consulted, and it is his responsibility to recognize the ocular symptoms characteristic of such infections. This is most important when actual nasal discharge is absent. A careful and thorough nasal examination should be made, as a superficial one may lead to an unwarranted sense of security.

From the oculist's standpoint, the most practical method would be to consider, in their order, first, local signs of inflammation, such as œdema, disturbances of position or motility of the globe, local pain and tenderness; and then the functional disturbance of vision for form, light, and color, with their respective significance for diagnosis of accessory sinus disease. From the clinical and diagnostic point of view we must also consider the various types of sinus disease, and examine the sinuses separately for special symptomatology as indicated by ocular involvement characteristic of each. Among the more evident agencies, we have to deal with nerve irritation, either in the form of reflexes or from direct action of toxic substances, mechanical pressure, or hyperæmia from vascular involvement. Among the superficial reflexes are lachrymation, clonic or tonic spasm, and fleeting œdema of the lids independent of inflammatory processes, transient conjunctival or scleral injection, and meiosis. Among the secretory neuroses noted are transient rise of intraocular tension, or a pronounced glaucoma disappearing promptly under nasal treatment. It is possible that vitreous dust and some lenticular opacities may be due to disturbed nutrition of the choroid dependent on long continued reflex irritation, although toxic factors play a more important part. Sensory neurosis causing fleeting or more or less continuous pain in and about the eyeball, radiating to the temple, brow and occiput, have been reported.

The symptom-complex of osthenopia is frequently found in long standing sinus disease. Disturbances of central vision and the field for white or color can hardly be explained on the basis of reflex irritation and give evidence of direct optic involvement. Motor disturbances manifesting themselves by limitation of ocular excursions are generally an indication of mechanical interference by dislocation of adjacent structures, such as bulging of a sinus wall, mucocele, empyema, cellulitis or pus in the orbit. These conditions may also affect the optic nerve directly when the ophthalmoscope may show neuritis, choked disc and later atrophy. In optic nerve affections having their origin some distance behind the globe a retrobulbar neuritis is the rule. The commonest form of field defects are a central or paracentral scotoma, a ring scotoma, and irregular central defects, frequently without ophthalmoscopic findings. Another form of central defect which is pathognomonic of optic nerve affection based on accessory sinus suppuration is the enlargement of Mariotte's spot. This scotoma is a negative one. In a large series of cases of posterior sinus disease Van der Hoeve noted an invariable enlargement of the blind spot, while in anterior disease this symptom was missing. Central color scotoma was always a later symptom. The absolute size of the scotoma is not diagnostic. C. G. DARLING.

**Attias: The Intrascleral Nerve Loops.** *Ann. Ophth.*, 1913, xxii, 73. By Surg., Gynec. & Obst.

Attias has exhaustively examined serial sections of anterior halves of eyes for the purpose of studying the topography of nerves in this portion, and furnishes three additional cases of intrascleral nerve loops. Axenfeld first reported the peculiar course of a ciliary nerve that passed perpendicularly through the sclera, touched the conjunctiva, then formed a loop, passed back through the same canal, and finally spread out in the ciliary body. Very few cases have heretofore been published, and with the exception of Axenfeld's the writers do not state that they saw an anastomosis of the loops with other nerves, or a division of the loops during their course through the sclera. The author's sections allowed an exact examination of the large nerve branch which arose from the loop, extended through the

sclera and entered the cornea, acting thereafter like all other large corneal nerves. Two smaller loops, evidently much less numerous than the larger ones, were found to penetrate the sclera for a distance not greater than 100 micra. One was made up of all the fibers of the nerve; in the other, the central fibers ran straight by the opening, and only the outer bundles entered the scleral tissue. Neither of these two structures gave off a branch to the sclera, and but one was found near a small vein and artery. These loops are most often found under the superior rectus, but in one of two cases here reported they were situated under the insertion of the external rectus. Apparently Axenfeld described a case where the loop was seen inferiorly. The distance of these emissaria from the corneo-scleral junction varied from 1.7 mm. to 3.5 mm., and their direction was not always perpendicular to the surface, but often oblique.

The author believes he can conclude with great certainty that the fibers within the intrascleral portion are more tortuous and of somewhat smaller caliber than in their extrascleral course; that they are medullated throughout; that no ganglion cells can be demonstrated in the caps of the loops; that a small amount of connective tissue is present between the fibers, and that on account of the large branch given off in the one case the distal arm of the loop was thinner than the proximal. Attias does not give to the accompanying vessels the same importance that other observers have accorded them and does not believe, on account of their small size, that to them alone can be ascribed the origin of these loops. The simplest explanation of these would be that these ciliary nerves have grown too long for the bulb and necessarily have become bent. Thorough embryological investigations, too, are necessary to obtain certain explanations for the origin of these peculiar structures. FRANCIS LANE.

**Sattler: Short Clinical Accounts with Microscopic Demonstrations of Two Cases of Tumor of the Optic Nerve.** *Arch. Ophth.*, 1913, xlii, 25. By Surg., Gynec. & Obst.

A fibrosarcoma of the optic nerve of slow growth, with almost unimpaired vision until 5 months before operation, increasing exophthalmos, with irritability of the eye from exposure yet with perfect mobility of the globe, made surgical interference a necessity. The tumor was removed, with resection of the outer wall of orbit (Krönlein), the globe preserved, and the lids closed with temporary sutures.

Five days later the eye was removed on account of involvement of the cornea. Sixteen months later the apex of the orbit was occupied by a dense, flattened, painless mass. There was also a slight prominence of the left eye. The patient reported two years after the operation that his health was good except for some loss of weight. The other case, in a boy aged four, was that of an intradural fibrosarcoma of the optic nerve, with rapidly advancing exophthalmos of the right eye. The condition had been noticed by the parents for five months, and during the last month there had been an increasing irritability from exposure and insufficient lid protection. There was perfect mobility of the globe. A tumor was removed without resection of outer wall of the orbit, and an encapsulated, hard, egg-shaped mass, fully one inch long, was removed. An attempt was made to save the globe, but it became necessary seven days later to enucleate it. Fourteen months later patient was reported in good health.
C. G. DARLING.

**Dor: The New Antiglaucomatous Operations.** *J. Ophthal.*, 1913, ix, 195. By Surg., Gynec. & Obst.

The first operation for combating glaucoma was the equatorial sclerotomy of Guérin, now known as posterior sclerotomy and considered an operation of urgency, permitting the crisis of acute glaucoma to be passed without the vision being definitely compromised.

Iridectomy (applied by von Graefe) was used and advocated for thirty years, until the desire for better results brought out the idea of creating a filtrating cicatrix. Attempts to obtain this were made by incarcerating the iris or a conjunctival flap; and by a subconjunctival shutter (Harman). Cyclodialysis (Heine) is an attempt to obtain infiltration into the subchoroidal spaces and seems especially recommended in cases where the anterior chamber has disappeared, where the tension is very much increased, cases complicated with luxation of the lens, hæmorrhagic glaucoma, hydrophthalmia, in cases where iridectomy has failed, and in glaucoma following cataract operation. Cyclodialysis has an important literature of its own.

Subconjunctival fistula at the limbus was proposed by LaGrange (sclerectomy) and modified in several ways by others. Trephine (Elliot) is largely used. These operations are done either with or without an iridectomy.

The author advises keeping in mind posterior or equatorial sclerotomy and using it in emergency, especially in post-operative acute glaucoma, or as a preparatory operation. EARLE B. FOWLER.

**Grunert: The Operative Treatment of Keratokonus.** *Ophth.*, 1913, ix, 163. By Surg., Gynec. & Obst.

Grunert treated 11 eyes in 8 patients by his method of operation. He believes Elsching's method has the correct principle, but does not go far enough.

His operation is done in three stages. First, using an electrode with a flat tip and beginning at the upper limbus, he cauterizes for 20 to 30 mm., the burn reaching into the parenchyma. Then, with the finest wire tip, this line is extended into an equilateral triangle, one corner being continued as a fine line to the center of the cone.

Two days later, under general narcosis, the slough is scraped off, and the cornea is split along the middle line from the center to the limbus. The central

meridian of the cornea is then covered with a conjunctival bridge after Kuhnt's method. Four weeks later the flap is transplanted back. After the second stage of the operation the patient remains in bed 6 to 8 days, eserin or pilocarpin being used at each dressing. When the sutures do not cut spontaneously they are removed on the sixth day. Only after repeated and lasting subjective examination can one find the cylindrical correction which should be worn. C. G. DARLING.

**Roy: Syphilis of the Eye.** *South. M. J.*, 1913, vi, 13. By Surg., Gynec. & Obst.

The importance of syphilis in ophthalmology cannot be overestimated. Many obscure lesions connected with the eye where there was absolutely no history of syphilis have been permanently cured by the use of antispecific remedies. If it were not for the so-called "venereal diseases," the work of the ophthalmologist would be lessened at least one half, if not two thirds.

There are two forms of syphilis of the eye: (*a*) acquired and (*b*) hereditary. In the acquired forms we have the initial lesion around the eyelids as a possible location. In the secondary stages we have various manifestations:

1. Lids. Thickening of the tarsal cartilages, with marginal ulcerations. 2. Cornea. Diffused keratitis, and especially ulcers, are most frequently seen. Negroes especially are liable to this condition. Unless treated vigorously, such lesions are very destructive. Acquired interstitial keratitis is rare, but does occur. 3. Iris. Iritis with a syphilitic etiology is well known. It is the cause in nearly eight tenths of these cases. It manifests itself from the simplest forms to the most destructive. 4. Intraocular. Choroiditis with vitreous opacities and retinal hæmorrhages — these and many other conditions are manifestations of syphilis. Many cataracts are the result of syphilis caused by nutritive disturbances. 5. The optic nerve is not infrequently involved, and many atrophies of this structure, if not the large majority, are probably syphilitic. 6. Extrinsic muscles of the eye. Paralysis of the sixth and third nerve are by no means infrequent, and practically all have a syphilitic etiology. 7. The orbit and its adnexa sometimes show various syphilitic lesions.

In the hereditary syphilis the eye manifestations are also varied. Congenital opacities of the cornea, staphylomata, occluded pupil, various forms of polar cataracts, hydrops oculi, these and many others are congenital syphilitic manifestations.

The author puts more confidence in the mercury and iodides than he does in the salvarsan injections.

**Samuels: Peribulbar Implantation Cyst after Removal of Staphyloma of Cornea.** *Arch. Ophth.*, 1913, xlii, 12. By Surg., Gynec. & Obst.

Three years after the excision of an anterior staphyloma, a cyst which completely surrounded an atrophic bulb more than filled out the space normally occupied by the eyeball. The staphyloma involved three fourths of the normal corneal area and was accompanied with severe conjunctivitis, ciliary injection, and traumatic ulcer.

For the removal of the staphyloma the conjunctiva was freed at the limbus, the recti tenotomized, the cicatrix then excised, the free edges of the sclera sutured, the tendons fastened over the closed sclera, and lastly the conjunctiva sutured over the wound. The cyst with the shrunken bulb attached to its inner posterior surface was dissected out and examined microscopically.

The wall consisted of dense connective tissue lined throughout with stratified epithelium without a basement membrane. This epithelial lining spread completely over the scleral wall of the enclosed eyeball, which latter showed the characteristic findings of atrophy bulbi, so that no communication existed between the cyst cavity and the interior of the bulb.

The clear limpid fluid contained broken down cells.

Only four analogous cases have been recorded and all followed the excision of anterior staphyloma. In three, the cysts were only epibulbar and differed further from this case in that communication occurred through the unclosed sclera into the interior of the eye. The remaining case was epibulbar without extension into the eye.

The author's case is the most extensive on record, since it involved the whole of Tenon's space. The cause for such formation has been attributed to an invagination of conjunctiva by sutures, an ingrowing of epithelium during the process of healing, or to implantation of fragments of epithelium under the sutured conjunctiva.

Careful suturing of all conjunctival wounds is recommended as the most probable preventative of such occurrences. JOHN B. ELLIS.

## EAR

**Coates: Bismuth Paste in the Ear and Nose.** *N. Y. M. J.*, 1913, xcvii, 112. By Surg., Gynec. & Obst.

Without going into the use of Beck's bismuth paste in its application to general surgery, the author confines himself to his experience with it in ear and nose conditions. In his experience, its greatest value for the aurist is to promote quick healing in post-operative sinuses such as follow the simple mastoid operation where the blood-clot dressing is not used. In these cases it is found that the time of convalescence is very materially shortened, and the patient is relieved of the discomfort of prolonged packing. The paste dressing is not applied until the middle ear entirely or almost ceases to discharge. One or two injections of the sinus usually suffice to permanently close the wound. In cases where the radical mastoid operation has been performed and where dermatization is delayed, the paste dressing lessens discharge and promotes healthy granulation.

The simple technique is described and Beck's different formulæ given.

**Hays: Four Cases of Subperiosteal Abscess in Adults Complicated by Perisinus Abscess; Operation; Recovery.** *Am. J. Surg.*, 1913, xxvii, 28. By Surg., Gynec. & Obst.

Each of these cases suffered from trouble with the ear for at least six weeks, and although extensive destruction had taken place the operative recovery was rapid and uneventful. The condition is more common in adults than is generally supposed. The chief interesting feature of the cases was the long duration of the trouble with apparently little pain. The mastoid is usually almost entirely destroyed by pus, but, the drainage from the middle ear being free, little pain is experienced. The lesson to be drawn from these cases is that there are many cases of acute mastoiditis which apparently subside and leave no indication except a continuous discharge of thick pus. Suddenly a swelling of the canal and the tissues over the mastoid is seen, indicating the presence of an abscess. One should be careful not to prognosticate too early, for what is apparently a condition that is getting better is actually a condition that is getting worse.

**Milligan: Treatment of Meningitis of Otitic Origin.** *Lancet*, Lond. 1913, clxxxiv, 226. By Surg., Gynec. & Obst.

Milligan finds it most convenient to classify lepto-meningitis into simply serous and purulent, disregarding more elaborate classifications. During the serous stage, and while the disease is still localized, it is a fit condition for operative treatment. When the text-book symptoms of meningitis have developed, recovery is nearly impossible. Hence in suspected cases Milligan is guided by examination of the spinal fluid. An increasing acid content, increased albumin, and the absence of Fehling's reaction, he regards as very sure indications of the progress of purulency. A fluid not acid, even though turbid, gives hope of a favorable outcome of operation. He lays less stress on turbidity, cell count or negative bacteriologic findings.

In addition to œdema of the optic papilla, as an early sign, he has found a lowering of the upper tone limit in the sound ear, probably due to the same mechanism as the optic neuritis.

As to treatment, he regards all cases not considered purulent as operative. Operation should be done early. Lumbar puncture or continuous spinal drainage he regards as inferior to a decompression of the skull with drainage, always in addition to the removal of the original focus. If the labyrinth is the primary focus, its complete removal, with drainage, is advised. Usually he performs an occipital decompression in order to avoid infecting the cerebro-spinal fluid. The internal ear is in Milligan's opinion the most frequent avenue of infection and the most dangerous, because it leads to direct infection of the posterior fossa. "Tympanic" infections are more localized and less difficult of access. In the former a complete labyrinthectomy in addition to a complete post-aural operation should be performed. Any pathological tract leading into the cranium should be followed and free drainage provided by removal of as much surrounding bone as may be necessary.

In spreading meningitis, the difficulties of treatment are greatly increased. The objects of operation are (1) relief of intracranial pressure with the resultant starvation of the tissues, (2) the establishment of free drainage from the meninges, and (3) the overcoming of the existing toxæmia. Accordingly, in addition to the opening of the skull, Milligan splits freely or excises the dura. He is in favor of Haynes' method of decompression in spite of his own somewhat unfavorable results, due to the nature of the cases. This method drains the cisterna magna through the cerebello-medullary angle, thus doing away with troublesome herniation and draining the natural reservoir of pus.

Milligan's records show 37 cases of serous meningitis, so-called, with 29 recoveries. Of the 8 fatal cases, the cerebro-spinal fluid became definitely purulent in all.

Of the cases diagnosed purulent meningitis before operation, there were 14. Four cases seemed hopeless before operation and died. Of the remaining 10, where there was a chance of recovery, 6 died, and 4 (or 40 per cent) lived.

CARL FISHER.

**Milligan: Tuberculous Disease of the Ear.** *Practitioner*, 1913, xc, 248. By Surg., Gynec. & Obst.

Tuberculous disease may attack the external, middle, or internal ear, and may be a primary or secondary infection.

Temporal bone tuberculosis, which is usually secondary to tuberculous disease of the middle ear cleft, leads to tuberculous infection of the meninges and intracranial abscess. These infections are usually of septic origin.

Tuberculous disease of the external ear is rare. Lupus vulgaris is the common form met with in children and young adults. The nodules break down, form ulcers with indentated edges, and spread superficially. Lupus hypertrophicus is characterized by excessive granulation tissue. Lupus erythematosus attacks the auricle with a symmetric appearance. For treatment, each nodule should be destroyed by cautery or strong caustic.

Tuberculous disease of the middle ear is primary or secondary. Primary in infants and children attacks the petromastoid and mucosa. The channels are (1) aerial, (2) lymphatic, (3) vascular, and (4) lymphoid tissue along the Eustachian tube. Secondary infection of the middle ear is found amongst those suffering from advanced phthisis, as tuberculous disease of the larynx, pharynx, etc. The pathology is the characteristic tubercle with multiplication of epithelioid cells. Symptoms are rapid inanition, night sweats, diarrhœa and atypical

pulse; locally, those of acute otitis media, with or without pain. The membrane tympani appears pale, flabby and œdematous and may have one or more perforations. Enlarged glands and facial paresis are frequent signs. Tuberculosis of the internal ear is usually secondary to middle ear disease and as a rule by way of fenestra ovalis. The static and acoustic segments are early affected, and a search for the tubercle bacillus should be made to clinch the diagnosis.

For treatment there are two classes: (1) The inoperable, infants in poor health; and (2) the operable, where disease is primary and within the limits of surgical intervention. WM. H. THEOBOLD.

**Turner and Fraser: Otosclerosis.** *Edinb. M. J.*, 1913, x, 71. By Surg., Gynec. & Obst.

The authors discuss the subject of otosclerosis, especially from the anatomical and pathological standpoint, emphasizing the fact that normally the membranous labyrinth is surrounded by two distinct layers of bone. The inner layer, the labyrinth capsule proper, is derived from the cartilaginous otic capsule of the embryo; the outer, surrounding this cartilaginous bone, is formed from the deep layer of the tympanic mucoperiosteum of the petrous bone.

"Otosclerosis is characterized by changes in the structure of the bone surrounding the labyrinth, leading in most cases to ankylosis of the stapes. Portions of normal bone, especially around the oval and round windows, are affected and replaced by spongy ostioid tissue, which later becomes destroyed. This process is supposed to advance along the blood-vessels. In some cases there is even degeneration of the nervous structure of the labyrinth. All writers are agreed that the bony changes are inflammatory, but as to the primary site of the onset there is much disagreement."

The disease, from an etiological standpoint, is said to be a local manifestation of general toxic conditions. Bezold found heredity a factor in 52 per cent of cases. Hammerschlag includes progressive nerve deafness and hereditary deafmutism under this same head. Ferreri considers the condition to be a latent autointoxication of rachitic or osteomalacic origin.

The symptoms and functional examination are taken up briefly, and under the heading of diagnosis the condition is summed up as follows: 1. Gradual onset of progressive deafness and tinnitus. 2. History of hereditary deafness in the family. 3. Patient hears better in a noisy place. 4. The tympanic membrane is normal. 5. A red shimmer from the promontory may be seen through the membrane. 6. The Eustachian tube is patent. 7. Loss of the lower tones. 8. Lengthened bone conduction. 9. Bone conduction for medium tones better than air. 10. Gelle's test is negative. 11. The upper tone limit is normal.

As far as recovery is concerned, treatment is useless; the patients are encouraged to learn lip-reading while the hearing is still useful.

EUGENE CARY.

**Holmes: The Value of the Blood Clot in Operations for Acute and Chronic Mastoiditis.** *Lancet-Clinic*, 1913, cix, 64. By Surg , Gynec. & Obst.

The credit of this method belongs to Clarence J. Blake of Boston. The percentage of successes is so great that it is the method par excellence, especially in chronic cases. Added to this are other distinct advantages: after treatments are devoid of pain; the period of convalescence is shortened; disfigurement is avoided; and better results in hearing are obtained.

The success of the blood clot method depends primarily upon eliminating as nearly as possible all infective matter, and secondly upon the bactericidal properties of the blood. It has been proven that clotted blood has greater bactericidal power than circulating blood. Even if the clot should break down, the bony cavity has great osteoplastic activity and small granulomata begin to form within 48 hours; these finally form a glistening lining membrane in the cavity.

At the completion of the operation the wound is syringed forcibly with peroxide, and some is injected into the Eustachian tube. Then the cavity is filled with peroxide for 4 minutes, fresh solution being added from time to time as it oxidizes. Following this the process is repeated with alcohol (95 per cent), excercising the same thoroughness. Finally, to neutralize the alcohol the cavity is flushed with a saturated solution of bicarbonate of soda; this is allowed to remain an equal length of time.

A supply of fresh arterial blood is now secured from the post-auricular artery and the cavity filled therewith. The external canal is converted into flaps according to the Neumann method. The periosteum is carefully sutured with catgut, bridging across the cavity perfectly; overlying this is the external flap, which is closed by metal clamps. No drain of any kind is used. To prevent the dressing from soaking the blood out of the canal, the auricle is covered by a piece of gauze saturated with petrolatum. After 48 hours the bandage and clamps are removed.

Fifty cases were reported: 17 acute, with 41 per cent of perfect results, i. e. the blood clot not breaking down; and 33 chronic cases, with 82 per cent of perfect results. "In the acute and chronic cases, with partial breaking down of the clot, the upper three fourths of the scar always held perfectly, and the osteoplastic activity created by the blood clot during the 48 to 72 hours prior to the beginning of the partial breaking down had in this short time laid the foundation for the new lining membrane, thereby favoring much more rapid healing than would otherwise have taken place."

# SURGERY OF THE NOSE, THROAT, AND MOUTH

**Skillern: Anomalous Internal Carotid Artery and Its Clinical Significance in Operations on Tonsils.** *J. Am. M. Ass.*, 1913, lx, 172.
By Surg., Gynec. & Obst.

In view of the increasing number of operations on tonsils, and because of the popularity of complete ablation in preference to partial tonsillectomy, the author describes the following specimen:

Left side of skull containing internal carotid artery in situ and dissected free from surrounding tissues; uniform caliber; walls neither thick nor calcareous.

From skull and extending two-thirds of distance of bifurcation of common carotid, an S-shaped tortuosity bends not greater than 1 cm. from normal axis of artery, bringing artery in closer relation to left tonsil. Right internal carotid was normal. Other examples described (Wood): a girl aged five, and a boy aged seven. Right side of pharynx projected almost to median line; pulsating vessel size of lead pencil extended from below upward and inward to point opposite uvula then slightly outward and downward. Several similar cases are described, in one of which there was a pulsation of posterior palatine pillar, with large vessel immediately behind, and an audible systolic bruit. This anomaly is more frequent in women than men. Demme saw, in 10,000 patients, pulsation of pharyngeal wall in 2 per cent.

Conclusions drawn by author: Before all operations on the pharynx, make thorough ocular and digital examination for pulsations. If operation is indicated in presence of this anomaly, ligature of internal carotid opposite upper border of thyroid cartilage. If doubtful whether anomalous artery is internal carotid or ascending pharyngeal, occlude common carotid at same situation with a Matas clip. If artery damaged during operation, control by compressing common carotid against Chassaignac's tubercle, followed by ligation.

F. C. Winters.

**Marshall: Correction of Nasal Deformities, Particularly External Lateral Deflections and Depressions, with Obstructing Deviations of the Septum.** *J. Am. M. Ass.*, 1913, lx, 179.
By Surg., Gynec. & Obst.

Marshall confines his paper to disfiguring deformities only, most of which are combined with serious nasal obstruction. He has operated 33 cases of this type, with infection in two cases delaying healing about two weeks. He describes a technique which he devised seven years ago, the essential feature being to cut through the nasal process of the superior maxillary bone, avoiding injury to the lachrymal duct. Incision is made directly over the nasal process of the superior maxillary bone at the point where the elevation which makes the nasal prominence begins. The incision is made parallel with the normal line of the nose and is about 0.25 cm. long. Pressure is made at the point with a beveled chisel which penetrates the nasal process, great care being observed not to go beyond the bone. Without enlarging the skin incision, the chisel may cut the bone as far as desired. After withdrawal of the chisel, pressure is again instituted by an assistant while the operation proceeds in a like manner on the opposite side. Then, by means of a long-handled broad-bladed forceps such as the Ashe septal forceps, with one blade in the nasal passage and one outside, the mobility of the nasal process is completed by fracture.

The upper part of the nasal process can usually be made mobile at the sutures between the lachrymal and the nasal bones on either side. If there is nasal obstruction through malposition of the septum, the septum is seized with the same forceps and forced into position by loosening its articulations with the septum without separating them. The nose is not likely yet to be in a straight line, the defect lying at the suture between the frontal and the upper extremities of the two nasal bones and both processes of the superior maxillary bones. This can be corrected by a sharp stroke with the mallet at the point guarded by a rubber-covered lead plate, the force being directed downward from the frontal bone and toward the deflected side. Elevation can be assisted with a large urethral sound. If pressure has been kept on the point of incision for a few minutes there should be no extravasation of blood, and the wound will heal by first intention. The incisions are covered with iodoform gauze and collodion. The lower part of the external nose is incased with a collodion dressing.

L. G. Dwan.

**Kaempper: Suspension Laryngoscopy.** *N. Y. M. J.*, 1913, xcvii, 21.
By Surg., Gynec. & Obst.

The recently introduced suspension laryngoscopy of Killian bids fair to be as great an advance over direct laryngoscopy as that was over the older indirect method.

The instrument consists of a sort of gallows, fastened near one end of the table, from which the patient's head is suspended by a hook, while a spatula holds back the epiglottis and depresses the tongue into the floor of the mouth. When in position, the head is free of the end of the table and an extended view of the entire larynx and pharynx can be obtained.

Twenty per cent cocain with a few drops of adrenalin is the anæsthetic employed. Morphin-scopolamin is recommended for patients not tolerant under cocain. At times a general anæsthetic is required. In children under sixteen cocain or morphin-scopolamin should not be used.

In the introduction of the instrument the tongue is drawn out as far as the edge of the teeth. The spatula is passed along the tongue until it touches the posterior pharyngeal wall. It is then raised until the epiglottis is engaged and a view of the larynx obtained. The hook is then suspended from the gallows and the head allowed to hang by its own weight.

The advantages that this method has over the older methods are: that it allows the operator the use of both hands; it brings the larynx so near that manifestations are permitted which are impossible with any other method of approach, and blood and secretions, tending as they do to flow toward the roof of the pharynx, can readily be wiped away. There are no contraindications. The difficulties and dangers are those encountered in direct laryngoscopy and bronchoscopy.

Some fifty cases were reported by Killian in his original paper. They fall mainly into two groups — laryngeal tuberculosis and papillomatous growths. In the former class of cases the larynx was thoroughly curetted and the tubercular granulations removed at one sitting, and in only a few instances was a second operation required. The papillomata occurred mainly in children. There were no untoward symptoms resulting from the suspension in any of the reported cases.

**Pettit: Incipient Tuberculosis of the Larynx.** *N. Y. M. J.*, 1913, xcvii, 122.

By Surg., Gynec. & Obst.

The most frequent site of laryngeal tuberculosis is the posterior end of the vocal cord and the interarytenoid space. The first sign of its presence on the posterior wall is a diffuse or circumscribed thickening, and we find small nodules, a well defined infiltration, or a cone-shaped tumor projecting into the lumen of the glottis. Ulceration may start as such or be the result of caseation or fatty degeneration of an infiltrate.

Usually the appearance of the lesion is distinctive, and as a rule a thickened pachydermatous patch in the interarytenoid space is likely to be tuberculous; if there are demonstrable lesions in the lungs, it is tuberculous. A beginning gumma causes more inflammatory reaction, and is usually in the posterior part of the false cord. A beginning carcinoma is usually in the anterior part of the larynx, and the disturbance of motility of the cord is out of all proportion to the apparent size of the lesion. The tuberculous ulcer is characteristic. Its edges are thin, irregular, undermined, and have a peculiar, nibbled look; its floor is nodular.

The submucous cauterization consists in the application of a specially constructed electrode near the demarcation of diseased and healthy tissue, but far enough away from the latter so that the heat necrosis will just reach it. Pressure is applied until the tip of the electrode has sunk into the tissues to a depth corresponding to the vertical extent of the lesion. When the whitened cauterized area has reached the normal tissue the current is turned off and the instrument with due care is withdrawn. Healing takes place either by the sloughing off of the cauterized area or it becomes converted into a mass of dense connective tissue.

**Weatherbee: The Operative Treatment of Cleft Palate.** *Canad. M. Ass. J.*, 1912, iii, 25.

By Surg., Gynec. & Obst.

The history of cleft palate operations is reviewed. Until 1868 the earliest age for operation was fifteen years. At present all surgeons are agreed that operation should be performed under three years of age. The exact time is still in dispute, but there is a tendency to the earlier operation.

There are three methods now followed for closing the cleft palate, viz.: Brophy's, the flap operation of Davies-Colley as modified by Arbuthnot Lane, and Langenbeck's, sometimes spoken of as the median operation.

In Brophy's operation, the age of the patient should be between ten days and three weeks. The operation consists in thrusting the two superior maxillary bones together, holding them with wires and lead plates, and then adjusting with sutures the newly pared edges of the cleft. The soft palate is united at about the age of sixteen months. Brophy also advises closure of the lip two months after the first operation.

The turnover flap method of Lane is done as soon after birth as possible. The principle underlying the various methods is to close the cleft by muco-periosteum in the case of the hard palate and by mucous membrane and submucous tissue in the case of the soft palate. The harelip should be closed at the same time.

Langenbeck's operation is carried out between the ages of one and three years, according to the extent of the cleft. The operation consists in detachment of the mucoperiosteal tissues from the oral surface of the bony palate, detachment of the soft palate from the posterior edge of the palate bones, paring the margins of the cleft, suturing the pared edges, and making, if necessary, lateral incisions to relieve tension.

In any method, the mouth should be in good condition and the general health should be good. The anæsthetic should be chloroform. The after treatment and the late after treatment are very important, especially training in speech. The treatment by obturators is not satisfactory.

The author concludes that as yet the evidence is not sufficiently strong to convince one as to which is the best method of operation. FLOYD RILEY.

# BIBLIOGRAPHY OF CURRENT LITERATURE

## GENERAL SURGERY

### SURGICAL TECHNIQUE

NOTE.—The bold face figures in brackets at the right of a reference indicate the page of this issue on which an abstract of the article referred to may be found.

#### Operative Surgery and Technique

Referendum on the question of early leaving of the sick-bed after operations and births. KNAPP, BAISCH and LIEBI. Med. Klin., 1913, ix, No. 1.

#### Aseptic and Antiseptic Surgery

The development of antiseptic and aseptic surgery. E. J. STEWART. Hosp. Bull. Univ. Md., 1913, viii, 209.

Cult of iodine and dread of skin. J. L. THOMAS. Brit. M. J., 1913, i, No. 2714.

Disinfection of the skin by means of tincture of iodine. ABETTI. Clin. chir., 1912, xxi, No. 12.

Disinfection with benzine. SEHRWALD. Deutsche med. Wchnschr., 1913, xxxix, 318.

Thymol. B. G. CARLETON. J. Am. Inst. Homeop., 1913, v, 735.

The standardization of disinfectants. WALKER and AINSLIE. Canad. M. Ass. J., 1913, iii, 21.

Sterilization by means of formol vapors in surgical practice. GROSS and BARTHÉLÉMY. Rev. d. Chir., 1913, xxxiii, No. 1.

Criticism of the methods of disinfecting the hands by R. Schaeffer. LAUBENHEIMER. Ztschr. f. Geburtsh. u Gynäk., 1912, lxxii, No. 3.

Storing and sterilization of flexible instruments. HAGEN. Ztschr. f. Urol., 1913, vii, No. 1.

#### Anæsthetics

The present status of general narcosis. E. GRUNERT. Ergebn. d. Chir. u. Orth., 1913, v, 1. [355]

Intratracheal insufflation anæsthesia. COTTON and BOOTHBY. Ann. Surg., Phila., 1913, lvii, 43.

Concerning anæsthesia by means of ether. LECAPLAIN. Normandie méd., 1913, xxix, No. 1.

Eight years of chloroform anæsthesia in nose and throat surgery. C. P. GRAYSON. Laryngoscope, 1913, xxiii, 61. [355]

A study of the late complications of chloroform narcosis. PONOMAREFF. Vratch. Gaz., 1912, xix, No. 39.

On perfecting narcosis and scopolamin-pantopon narcosis in gynecological operations. KLEIMAN. J. akouch. i jensk. bolez., 1913, xxviii, No. 12.

Contributions to the pharmacology of mixed narcosis. The effect of narcotic mixtures on the pœcilothermal aquatic animals. KOCHMANN. Ztsch. f. exper. Pathol. u. Therap., 1913, xii, No. 2.

Intravenous narcosis. KEPPLER and BRESLAUER. Deutsche Ztschr. f. Chir., 1913, cxx, 265. [356]

The anæsthetic effects of the intravenous injection of paraldehyde. NOEL and SOUTTAR. Ann. Surg., Phila., 1913, lvii, 64. [357]

Mandibular anæsthesia; anatomical and clinical experiments to avoid after effects. SEIDEL. Deutsche Zahnheilk. in Vorte., 1913, xxviii, 31. [357]

The advantage of local anæsthesia for the reduction of fractures and dislocations. BRAUN. Deutsche med. Wchnschr., 1913, xxxix, 17. [357]

Local anæsthesia by the infiltration method in minor and major surgery. FOWLER. Denver M. Times, 1913, xxxii, 335.

Anæsthesia by infiltration and the method of injection of the Gasserian ganglion and the branches of the trigeminus. HÄRTEL. Arch. f. klin. Chir., 1913, c, No. 1.

The polyclinic of Rome. Surgical tuberculosis treated by Durante's method. Spinal anæsthesia. J. FORMICHELLA. Internat. J. Surg., 1913, xxvi, 16.

Extradural anæsthesia. LÄWEN. Ergebn. d. Chir. u. Orth., 1913, v, 39. [357]

Extradural anæsthesia for surgical and gynecological operations. BLEEK. Monatschr. f. Geburtsh. u. Gynäk., 1913, xxxvii, 122. [358]

Hedonal anæsthesia; its use in children. L. E. BARRINGTON-WARD. Brit. J. Children's Diseases, 1913, x, Jan.

Anæsthetics in obstetrical cases. H. A. SANDERS. N. Am. J. Homeop., 1913, xxviii, 34.

#### Surgical Instruments and Apparatus

The apparatus for continuous aspiration. P. K. MENZIES. Canad. M. Ass. J., 1913, iii, 36.

A tiltable chair for use in the administration of high extradural anæsthesia. SCHLIMPERT. Zentralbl. f. Gynäk., 1913, xxxvii, No. 2.

A light-carrier with lens and a rheostat for urethroscopy. V. C. PEDERSEN. J. Am. M. Ass., 1913, lx, 182.

A method of focusing several electric lights on the field of operation. W. BARTLETT. Ann. Surg., Phila., 1913, lvii, 124.

A cheap and efficient electric head light. J. WAGNER. N. Y. M. J., 1913, xcvii, 26.

A new electrical light projector for microscopy, scientific photography, and for the illumination of anatomical preparations and the field of operation. WOLFF. München. med. Wchnschr., 1913, lix, No. 53.

A new forceps for advancement operations. J. M. BALL. Interst. M. J., 1913, xx, 54.

A cannula-forceps for blood-vessel anastomosis. J. W. PRICE. Lancet-Clin., 1913, cix, 101.

An instrument for facilitating the suture of vessels after the method of Carrel. JEGER. Berl. klin. Wchnschr., 1913, l, No. 2.

An umbilical cord clamp. F. L. ADAIR. Surg., Gynec. & Obst., 1913, xvi, 99.

Models of apparatus for the treatment of fractures of the extremities. SOLIER JULIA. Rev. d. Cienc. Med. d. Barcelona, 1912, xxxviii, No. 12.

A galvanic cautery with protected plates. CLAOUÉ. Ann. d. mal. d. l'oreille, d. larynx, d. nez et d. pharynx, 1912, xxxviii, No. 11.

An apparatus for the injection and lavage of the pelves of the kidneys and the ureters. G. J. THOMAS. J. Am. M. Ass., 1913, lx, 184.

The employment of the luffa sponge in laparotomy. THIES. Zentralbl. f. Chir., 1913, xl, No. 3.

A portable combination douche-can and sterilizer. A. P. LEIGHTON, JR., J. Am. M. Ass., 1913, lx, 279.

An instrument for establishing fæcal drainage; with a report of its use on a case and, a consideration of the site for making a fæcal fistula in low-seated intestinal obstruction. W. C. LUSK. Ann. Surg., Phila., 1913, lvii, 106. [358]

A new forceps for operations for hæmorrhoids. ROKITSKI. Chir. Arch. Veliaminova, 1912, xxviii, No. 6.

Protective vulcanite pessaries. EKSTEIN. Zentralbl. f. Gynäk., 1913, xxxvii, No. 2.

## SURGERY OF THE HEAD AND NECK

### Head

Faulty development of the soft parts of the head in the new-born. VOGT. Monatschr. f. Geburtsh. u. Gynäk., 1913, xxxvii, No. 1.

Surgical treatment of cancer of the lower lip. T. W. HUNTINGTON. Northwest Med., 1913, v, 10.

A case of epithelioma of lip complicated by xanthoma tuberosum multiplex. A. DREXEL. Wis. M. J., 1913, xi, 253.

The etiology of facial paralysis. RYDEL. Przegl. lek., 1913, lii, No. 1.

Facial neuralgia; cure of an old case by means of hot air. COLOMB. Marseilles méd., 1913, l, No. 1.

The treatment of grave facial neuralgia by means of injection of alcohol into Gasserian ganglion. ALEXANDER and UNGER. Berl. klin. Wchnschr., 1913, l, No. 4.

Treatment of neuralgia of the trigeminus by means of injections of alcohol. KRYNSKI. Gaz. lek., 1913, xlviii, No. 1.

Nasal stenosis and adhesion of the tongue as a result of injury by gunshot; cure by operative intervention. BAR. Rev. hebdom. d. laryngol., d'otol. et d. rhinol., 1913, xxxiv, No. 1.

Congenital semi-hypertrophy of the cheek and of the parotid and submaxillary regions, associated with lingual semi-hypertrophy of lymphangiomatous origin. ROCHER. Rev. hebdom. d. laryngol., d'otol. et d. rhinol., 1913, xxxiv, No. 1.

The parotid crises of lead-poisoned subjects. ELIPPEL and CHABROL. Paris méd., 1913, ii, No. 6.

Treatment of chronic suppurating inflammation of the ethmoid bone. HAJEK. Wien. med. Wchnschr., 1913, lxiii, No. 4.

Replacing depressed fractures of the malar bone. J. G. R. MANWARING. J. Am. M. Ass., 1913, lx, 278.

With regard to the literature on cysts of the jaw. GERBER. Beitr. z. Anat., Physiol. Pathol. u. Therap. d. Ohres, d. Nase u. d. Halses, 1913, vi, No. 2.

A case of operative treatment of ankylosis of the lower jaw by the procedure of Rochet-Schmidt. LEVITE. Chirourgia, 1912, xxxii, No. 190.

Alveolar echinococcosis; its occurrence in Ain and Jura. ADAM. Gaz. d. hôp., 1913, lxxxvi, No. 3.

Repair of losses of substance from the skull and the dura mater. HACKER. Zentralbl. f. Chir., 1913, xl, No. 2.

On the manner of repairing losses of bony substance from the skull. RIGHETTI. Clin. chir., 1912, xxi, No. 12.

A case of cranial injury associated with a spinal lesion. A. B. EUSTACE and R. C. HAMILL. Illinois M. J., 1913, xxiii, 77.

Persistent diabetes insipidus after fracture of the base of the skull. MOHR. Monatschr. f. Unfallheilk. u. Invalidenwesen, 1912, xix, No. 12.

Decompressing craniectomy. BOUCHE. J. méd. d. Brux., 1912, xvii, No. 52.

Wounds by a sharp instrument in the left temporal region and penetrating into the brain. Isolated luxation of the first sphenoid bone. KARSCHULIN. Wien. med. Wchnschr., 1913, lxiii, No. 4.

The genesis and symptomatology of intracranial hæmorrhages in the new-born. ABELS. Arch. f. Gynäk., 1913, ix, No. 1.

Thrombosis of the sinuses and its relation to hæmorrhages of the brain and the pia mater. VORPAHL. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1913, lv, No. 2.

Operative treatment of cerebral tumors. BACHÖFFER. Therap. d. Gegenwart, 1913, liv, No. 1.

Two cases of colloid tumor of the third ventricle causing death. A. J. HALL. Lancet, Lond., 1913, clxxxiv, 89. [359]

Sarcoma of left frontal lobe of brain without definite symptoms until shortly before death. B. M. RANDOLPH. J. Am. M. Ass., 1913, lx, 30.

Clinical peculiarities of brain tumors. OPPENHEIM. Neurol. Zentralbl., 1913, xxxii, 3. [359]

Tumor of the brain, involving ocular muscles. C. R. DUFOUR. Va. M. Semi-Month., 1913, xvii, 489.

Brain tumors; 63 cases. K. BONHÖFFER. Therap. d. Gegenwart, 1913, liv, Jan.

A case of multiple cysticercus of the brain. MAJEWSKA. Med. i. kron. lek., 1913, xlviii, No. 3.

A contribution to the symptomatology of cerebral abscess, with special reference to diagnosis and to indications for surgical intervention. L. ARCHAMBAULT. Albany M. Ann., 1913, xxxiv, 6. [359]

Nystagmus retractorius as a focal symptom in brain lesions. ELSCHNIG. Med. Klin., 1913, ix, No. 1.

Abscess of the cerebellum; diagnosed, operated, and cured within two years. CURTILLET and ABOULKER. Ann. d. mal. d. l'oreille, d. larynx, d. nez et d. pharynx, 1912, xxxviii, No. 11.

Extirpation of the cerebellum in a case of congenital hydroencephalocele occipitalis. MEES. Beitr. z. Geburtsh. u. Gynäk., 1913, xviii, 1. [360]

Acromegaly, acromegalo-gigantism; importance of findings supplied by radiography. MARQUES and PEYRON. Arch. d'électric. méd., expér. et clin., 1913, xxi, 349.

Symptoms due to lesions of hypophysis. MARBURG. Ergebn. d. inn. Med. u. Kinderheilk., 1913, x, 146. [360]

Operation of tumors of the hypophysis. VON EISELSBERG. Arch. f. klin. Chir., 1912, c, No. 1.

Tumor of the hypophysis. G. E. DAVIS. Post-Graduate, 1913, xxviii, 49.

Commotio cerebri and anatomical findings. WEBER. Aerztl. sachverst. Zeitg., 1913, xix, 56. [360]

### Neck

Ludwig's angina. C. E. REITZEL. Med.-Council, 1913, xviii, 10.

Studies on the carotid gland of Luschka. FRUGONI. Policlin., Roma, 1913, xx, No. 1.

Vascular cyst of the neck. SOKOLOFF. Chir. Arch. Veliaminova, 1912, xxviii, No. 6.

Wry neck. BAUER. Ergebn. d. Chir. u. Orth., 1913, v, 191. [361]

A clinical lecture on myxœdema. W. H. WHITE. Lancet, Lond., 1913, clxxxiv, 154. [361]

A case of myxœdema. TCHEBOXAROFF. Vratch. Gaz., 1912, xix, No. 47.

Observations on certain diseases of the thyroid glands. W. D. HAMILTON. Therap. Rec., 1913, viii, 33.

The influence of artificial tracheal stenoses on the thyroid gland. REICH and BLAUEL. Beitr. z klin. Chir., 1913, lxxxii, No. 3.

The lesions of the thyroid body in hereditary syphilis. BOUCH. Roussk. Vratch, 1913, xii, No. 1.

The technique of and the indications for intercricothyreotomy. DENKER. Deutsche med. Wchnschr., 1913, xxxix, No. 1.

Some remarks on the thyroid gland in its relation to Basedow's syndrome. D. MARINE. Cleveland M. J., 1913, xii, 21.

The action of the extract of goiter on blood pressure and the isolated heart. GROUBE. Roussk. Vratch, 1912, xii, No. 1.

The relationship of the clinical and pathologic aspects of exophthalmic goiter. L. B. WILSON. Northwest Med., 1913, v, 1. [361]

Chronic malignant thyreoiditis (Peculiar granulous consistency of eosinophiles and plasma cells originating in the right lobe of the thyroid). O. MEYER. Frankf. Ztschr. f. Pathol., 1913, xii, 116. [362]

Operation for mutiple tumors of the thyroid which developed from embryonic débris. IAKOUBOVSKY. Chirourguia, 1912, xxxii, No. 190.

Benign epithelial tumors of the thyroid gland. D. MARINE. J. Med. Research, 1913, xxvii, 229. [362]

The appearance of thyreotoxic symptoms in tumor metastasis into the thyroid. MORI. Frankf. Ztschr. f. Pathol., 1913, xii, 2. [363]

Etiology of endemic goiter. R. MCCARRISON. Lancet, Lond., 1913, clxxxiv, 147.

Etiology of endemic goiter. BIRCHER. Ergebn. d. Chir. u. Orth., 1913, v, 133. [363]

The treatment of exophthalmic goiter. W. N. KINGSBURY. Proc. Roy. Soc. M., 1913, vi, 41.

Surgical treatment of exophthalmic goiter. H. A. BRUCE. Canad. M. Ass. J., 1913, iii, 1.

The non-surgical treatment of exophthalmic goiter. I. BRAM. Merck's Arch., 1913, xv, 1.

The operative treatment of exophthalmic goiter. E. O. JONES. Northwest Med., 1913, v, 5.

Present day conceptions of the pathologic physiology of Graves' disease from the surgeon's viewpoint. G. W. CRILE. Cleveland M. J., 1913, xii, 15. [363]

The kinetic theory of Graves' disease. G. W. CRILE. Am. J. M. Sc., 1913, cxlv, 28. [364]

New material for the study of goiter and of Basedow's disease. VELIAMINOFF. Roussk. Vratch, 1913, xii, No. 1.

Anatomico-pathological modifications in certain internal organs in Basedow's disease. CHROUSTALEFF. Roussk. Vratch, 1913, xii, No. 1.

Spontaneous cure of Basedow's disease. GROBER. München. med. Wchnschr., 1913, lx, 8. [364]

Surgical treatment of Basedow's disease. SCHLESINGER. Berl. klin. Wchnschr., 1913, l, No. 1.

The removal of the thyroid gland. H. C. HINDER. Austral. M. Gaz., 1913, xxxiii, 73.

Conservative treatment of tuberculous glands of the neck, based upon their pathology. J. S. BROWN. Med. Rec., 1913, lxxxiii, 12. [364]

Bilateral resection or unilateral extirpation of goiter. TIETZE. Berl. klin. Wchnschr., 1913, l, 3.

Castration and thyroparathyroidectomy. GOZZI. Gaz. med. ital., 1913, lxiv, No. 4.

Two cases of tonsillar and peripharyngeal abscess. DE VAUGIRARD. Arch. d. méd. d. enfants, 1913, xvi, No. 1.

Two cases of laryngo-œsophagectomy. VAN DEN WILDENBERG. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Cervical ribs. STREISSLER. Ergebn. d. Chir. u. Orth., 1913, v, 280. [365]

The ideal lesion produced by judicial hanging. F. WOOD-JONES. Lancet, Lond., 1913, clxxxiv, 53.

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## SURGERY OF THE CHEST

### Chest Wall and Breast

The differential diagnosis of swellings in the breast. CHAS. A. MORTON. Med. Press & Circ., 1913, cxlvi, 90.

Some points in diagnosis and removal of malignant conditions of the breast. A. D. WILLMOTH. Ky. M. J., 1913, xi, 61.

Recurrent carcinoma of the breast treated by X-rays. E. P. CUMBERBATCH. Proc. Roy. Soc. M., 1913, vi, 38.

Breast tumors, with special reference to carcinoma. A. PRIMROSE. Am. J. M. Sc., 1913, cxlv, 100.

Benign tumors of the mammary gland; a histological and pathological study. LETULLE. Rev. d. Gynéc. et d. Chir. abdom., 1912, xix, No. 5.

Plastic surgery of the mammary gland. WEICHERT. Berl. klin. Wchnschr., 1913, l, No. 3.

A transverse gunshot wound of the left shoulder and the thorax. FOLLY and SALINIER. Arch. d. méd. et d. pharmac. milit., 1912, lx, No. 12.

A wound which penetrated the fourth intercostal space of the left side; hæmomediastinum. CAULI. Riv. Osp., 1913, iii, No. 1.

Treatment of fracture of clavicle. E. M. MAGRUDER. Internat. J. Surg., 1913, xxvi, 31.

Wedge resection of ribs to reduce size of thorax in treatment of pulmonary tuberculosis. M. WILMS. Therap. d. Gegenwart, 1913, liv, No. 1.

Total congenital rib defect. HADDA. Ztschr. f. orth. Chir., 1913, xxxi, 176. [366]

A case of fracture of the fifth vertebra treated by means of laminectomy. NORDENDOFT. Hosp.-Tid., 1913, lvi, No. 3.

Pneumothorax treatment. C. LILLINGSTON. Practitioner, Lond., 1913, xc, 129.

Artificial pneumothorax in the treatment of pulmonary tuberculosis. L. S. PETERS and E. S. BULLOCK. N. Mex. M. J., 1913, ix, 95.

Three cases of death resulting from therapeutic artificial pneumothorax for pulmonary tuberculosis; autopsy. SUNDBERG. Nordisk Tidskr. f. Terapi, 1912, xi, No. 3.

Operative accidental symptoms and complications of artificial pneumothorax in the treatment of pulmonary tuberculosis. PIERY and BOURDELLES. Prog. méd., 1913, xli, No. 1.

Tuberculoma of the thoracic wall simulating a myxoma. STEFANI. Lyon chir., 1913, ix, No. 1.

A new contribution to the radical cure of exudative pleuritis. D'AURIA. Giorn. internaz. d. scienze med., 1913, xxxv, 22. [366]

Hydatid cyst of the right pleural cavity; pleurotomy. VERNESCU. Spitalul, 1912, xxxii, No. 21.

Contributions to the physiology and pathology of the thymus: the relationship of the thymus to the thyroid. BASCH. Ztschr. f. exp. Pathol. u. Therap., 1913, xii, 180. [366]

Cysts of the thymus. HÜTER. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1912, lv, No. 1.

Tracheostenosis thymica. HÖNIGER. Beitr. z. klin. Chir., 1913, lxxxii, 484. [367]

The enlarged thymus in Basedow's disease. LABOURÉ. Arch. prov. d. Chir., 1912, xxi, No. 12.

Attempts at obtaining the reaction of the fixation complement in hyperplasia of the thymus (thymic asthma) and in status lymphaticus; slight signs of dysthyroidism. LUZZATTI. Riv. Osp., 1913, iii, No. 1.

A case of mediastinitis phlegmonosa antica; a contribution to the study of tuberculosis of the bronchial glands. RUBEN. Wien. klin. Rundschau, 1913, xxvii, Nos. 1–3.

Resection of tuberculous lymph glands causing tracheal stenosis at the bifurcation. BETKE. Berl. klin. Wchnschr., 1913, l, No. 4.

### Trachea and Lungs

Tracheotomy of urgency, with special consideration of the complications in goiter. SEHRT. Med. Klin., 1913, ix, 132. [367]

A slight modification in the technique of tracheotomy. PORTELA. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Thoraco-pulmonary fistulæ. WOLFF. Ugesk. f. Laeger, 1913, lxxv, No. 2.

Direct laryngoscopy, tracheo-bronchoscopy and œsophagoscopy. A. L. TURNER and J. S. FRASER. Edinb. M. J., 1913, x, 6.

Tracheo-bronchial stenosis caused by anthracic lymph glands: carcinoma of the œsophagus which perforated into the trachea: gumma of the trachea. GERBER. Arch. f. Laryngol. u. Rhinol., 1913, xxvi, No. 1.

A primary bronchial carcinoma. KRELINGER. Frankf. Ztschr. f. Pathol., 1913, xii, No. 1.

A report of a case of bronchoscopy for multiple foreign bodies (almond shell and pulp) in a child two years of age, with some observations upon bronchoscopy in infants and young children. J. R. WINSLOW. Hosp. Bull. Univ. Md., 1913, viii, 201.

Report on foreign bodies in the respiratory passages. ZIMMERMAN. Ztschr. f. Ohrenheilk. u. f. d. Krankh. d. Luftwege, 1913. lxvii, Nos. 1–2.

The significance of trauma in pneumonia. RUBIN. Monatschr. f. Unfallheilk. u. Invalidenwesen, 1912, xix, No. 12.

Echinococcus of the lungs. BEHRENROTH. Ergebn. d. inn. Med. u. Kinderheilk., 1913, x, 499. [367]

A case of tumor of the lung which was treated by Röntgen rays. KRUKENBERG. Fortschr. a. d. Geb. d. Röntgen., 1913, xix, No. 5.

A case of pneumonotomy for foreign body. T. H. KELLOCK. Lancet, Lond., 1913, clxxxiv, 92. [367]

Surgical treatment of pulmonary emphysema. TYTGAT. Ann. d. l. Soc. d. Méd. d. Gand., 1912, iii, No. 3.

Experimental localization of pulmonary embolism. KRETZ. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1913, lv, No. 2.

Contribution to the surgery of lung cavities. BAER. Berl. klin. Wchnschr., 1913, l, 107. [368]

Artificial breathing. MEYER. Ztschr. f. ärztl. Fortbild., 1913, x, 11. [368]

### Heart and Vascular System

A second case of wound of the heart by a sharp instrument; suture; cure. BOLIARSKY. Roussk. Vratch., 1912, xi, No. 51.

Surgery of the heart. LUCAS. Deutsche med. Wchnschr., 1913, xxxix, 106. [369]

A case of metastatic carcinomatosis of the cardiac muscles. WAGNER. Wien. med. Wchnschr., 1913, lxiii. No. 1.

Observations on a case of mediastinopericarditis treated by cardiolysis. A. J. DUNN and J. E. SUMMERS. Am. J. M. Sc., 1913, cxlv, 74. [369]

Two further cases of absence of the pericardium. PLAUT. Frankf. Ztschr. f. Pathol., 1913, xii, No. 1.

Obstruction of the superior vena cava. A. M. GASSAGE. Proc. Roy. Soc. M., 1913, vi, 47.

### Pharynx and Œsophagus

A brief review of the affections of the œsophagus. CECIL BOSANQUET. Clin. J., 1913, xli, 209.

Diagnosis and treatment of cicatricial stenoses of the œsophagus. GUISEZ. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

A case of cicatricial stenosis of the œsophagus. DUJON. Ann. internat. d. chir. gastro-intestinale, 1912, vi, No. 5.

Indications for following the endogastric route for the surgical treatment of certain impassable cicatricial stenoses of the œsophagus. DELAGÉNIÈRE. Arch. prov. d. Chir., 1912, xxi, No. 12.

A new principle in œsophagoscopy and gastroscopy. R. LEWISOHN. Ann. Surg., Phila., 1913, lvii, 28. [369]

Œsophagoplastic surgery. FRANGENHEIM. Ergebn. d. Chir. u. Orth., 1913, v, 406. [369]

Removal through the mouth of a tooth-plate impacted in the œsophagus for two and a half years. ST. CLAIR THOMSON. Lancet, Lond., 1913, clxxxiv, 16.

Experiments on Roux's operation (œsophago-jejunogastrotomy) by the endothoracic path. UFFREDUZZI and GIORDANO. Gior. d. l. R. Accad. d. Med. d. Torino, 1912, lxxv, Nos. 10–11.

Radiology of the thorax and diagnosis of pulmonary tuberculosis in the region about the hilum. GADUCHEAUX. Clin., 1913, viii, No. 4.

---

## SURGERY OF THE ABDOMEN

### Abdominal Wall and Peritoneum

Casuistics of wounds caused by impalement. ORTHNER. Wien. klin. Wchnschr., 1913, xxvi, No. 2.

Diastasis through wound of the abdomen associated with prolapsus of the intestines. HALPERNE. Chir. Arch. Veliaminova, 1912, xxviii, No. 6.

The transverse incision in laparotomy. A. J. WALLACE. Med. Press & Circ., 1913, cxlvi, 118.

Experiments with permanent drainage in ascites. PERIMOFF. Zentralbl. f. Chir., 1913, xl, No. 1.

Abdominal rigidity. L. M. KAHN. N. Y. M. J., 1913, xcvii, 184.

Two cases of tumors of the navel. CHAPIRO. Vratch. Gaz., 1912, xix, No. 39.

A case of laceration of the diaphragm which could be demonstrated only by means of radiological exploration. STOVER. Fortschr. a. d. Geb. d. Röntgen., 1913, xix, No. 5.

Permanent drainage of stagnant ascitic extravasations into the subcutaneous or extraperitoneal cellular tissue by means of an india rubber or fish-bladder fingerstall. HENSCHEN. Zentralbl. f. Chir., 1913, xl, No. 2.

Normal and pathological physiology of the peritoneum. LIPPENS. Presse méd., 1913, xxi, No. 3.

Free transplantation of the peritoneum. HOFMANN. Zentralbl. f. Chir., 1913, xl, No. 4.

Experiments in treatment of peritonitis. SCHEPELMANN. Med. Klin., 1913, ix, 102. [370]

Prevention of post-operative peritonitis in cases of contaminated laparotomy. HERFF. Gynäk. Rundschau, 1913, vii, No. 1. [370]

The most recent attempts in surgical prophylaxis and treatment of diffuse peritonitis. BECKER. Deutsche med. Wchnschr., 1913, xxxix, No. 1.

Tuberculous peritonitis twice operated and followed by normal pregnancy. DELASSUS. J. d. sc. méd. d. Lille, 1913, xxxvi, No. 2.

Peritonitis due to pneumococci in an adult; its relation to a concomitant cyst of the ovary; spontaneous recovery resulting from opening into the umbilical cord. DE VERBIZIER. Toulouse méd., 1913, xv, No. 1.

The results of filigree implantation. L. MCGAVIN. Proc. Roy. Soc. M., 1913, vi, 103. [370]

Hernias. SCHLOFFER. Med. Klin., 1913, ix, Nos. 2–3.

Rare hernias. LEVIT. Casopis lek. ceskych, 1912, li, Nos. 51–52.

Two somewhat rare forms of hernia (hernia supravesicalis externa and hernia ventralis lateralis). STEIMKER. Beitr. z. klin. Chir., 1913, lxxxii, No. 3.

Fat hernia. JOS. RANSOHOFF. Lancet-Clin., 1913, cix, 6.

Inguinal hernias. EHLER. Casopis lek. ceskych, 1912, li, No. 52.

Inguinal hernia of the cæcum and appendix; an account of cases. R. H. FOWLER. Am. J. Surg., 1913, xxvii, 26.

A rare complication following herniotomy for strangulated inguinal hernia. FINSTERER. Wien. klin. Wchnschr., 1913, xxvi, No. 3.

Suture of large umbilical hernias and other similar hernias. BERTELSMANN. Zentralbl. f. Chir., 1913, xl, No. 4.

Clinical contribution on the radical cure of umbilical hernia and of hernia of the abdominal wall. TRAZZI. Gaz. d. Osp. e. d. Clin., 1913, xxxiv, No. 4.

Anatomical research on pectineal hernia. MANTELLI. Gior. d. l. R. Accad. d. Med. d. Torino, 1912, lxxv, Nos. 10–11.

Extrasaccular hernia. A. J. WALTON. Ann. Surg., Phila., 1913, lvii, 86.

Prophylaxis against hernias and eventrations after laparotomies. VALLIACHKO and LEBEDEFF. Roussk. Vratch, 1913, xii, No. 1.

The employment of herniary bandages. CHLUMSKY. Casopis lek. ceskych, 1912, li, No. 49.

Meckel's diverticulum; with report of four cases. J. R. WELLINGTON. Surg., Gynec. & Obst., 1913, xvi, 74. [371]

### Gastro-Intestinal Tract

Correlation of symptomatology and pathology between different parts of the gastro-intestinal tract. M. V. TYRODE. Ellingwood's Therap., 1913, vii, 2.

Epigastralgia. RIAZENTZEFF. Vratch. Gaz., 1912, xix, No. 47.

Further remarks on epigastralgia. GAMALÉÏA. Vratch. Gaz., 1912, xix, No. 39.

Wound of the stomach by a thrust with a knife. JOSSE. Arch. d. méd. et d. pharmac. milit., 1912, lx, No. 12.

Two cases of bilocular stomach; radioscopic diagnosis; surgical intervention; recovery. BARJON and REY. Arch. d'électric. méd., expér. et clin., 1913, xxi, 349.

A case of total gastroptosis with dilatation of the œsophagus. T. RÖVSING. Hosp.-Tid., 1913, vi, 1. [372]

Timely diagnosis of acute perforation of the stomach. KULENKAMPFF. Deutsche med. Wchnschr., 1913, xxxix, No. 3.

The employment of subnitrate of bismuth in hyperchlorhydria and in ulcer of the stomach. MORICHEAU-BEAUCHANT. Arch. méd.-chir. d. Prov., 1912, vii, No. 12.

Chronic juxtapyloric ulcer of the stomach. KNUD FABER. Ugesk. f. Laeger, 1913, lxxv, No. 3.

General consideration of operations for gastric ulcer and pyloric ulcer. DEWITT G. WILCOX. N. Eng. M. Gaz., 1913, xlviii, 11.

Osseous formations in a cancer of the stomach. GRUBER. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1913, lv, No. 2.

Report of a case of fibroid of the stomach with perforating ulcer; transgastric resection; recovery. R. E. SKEEL. Am. J. Obst., N. Y., 1913, lxvii, 421. [372]

Tuberculosis of the stomach and intestines. T. THOMPSON. Practitioner, 1913, xc, 228.

Hypertrophic stenosis of the pylorus in adults. H. G. BARLING. Lancet, Lond., 1913, clxxxiv, 231. [372]

Hypertrophic pyloric stenosis in an infant; gastro-enterostomy at the age of 13 days; cure. FRÉDET and TIXIER. Bull. et mém. d. l. Soc. méd. d. hôp. d. Paris, 1913, xxviii, 868. [373]

Hypertrophic muscular stenosis of the pylorus in an infant; presentation of a case operated in 1907. FRÉDET. Bull. et mém. d. l. Soc. méd. d. hôp. d. Paris, 1912, xxviii, 789. [373]

Spasm of the pylorus and congenital pyloric stenosis. HENRY KOPLIK. N. Y. M. J., 1913, xcvii, 57.

The operation for congenital pyloric stenosis. RAMMSTEDT. Zentralbl. f. Chir., 1913, xl, 3. [373]

Gastropexy by means of the round ligament. PAGENSTECHER. München. med. Wchnschr., 1913, lx, 24. [374]

Subtotal gastrectomy for gastric atony; case report. FRED FLETCHER. Am. J. Surg., 1913, xxvii, 19. [374]

Gastrotomy with removal of 1149 foreign bodies; recovery. A. C. MATTHEWS. Calif. St. J. M., 1913, xi, Jan.

The circulus vitiosus after gastro-enterostomy. RADLINSKI. Przegl. lek., 1913, lii, No. 1.

Diarrhœa as an accidental symptom appearing subsequent to gastro-enterostomy. DURAND. Prog. méd., 1913, xli, No. 1.

The pyloric passage after gastro-enterostomy or after pylorectomy. BLAD. Ugesk. f. Læger, 1913, lxxv, No. 4.

Diagnosis of duodenal ulcer. H. G. FITCH. Ellingwood's Therap., 1913, vii, 1.

Duodenal ulcer from the medical point of view. PFANNENSTIEHL. Nordisk Tidskr. f. Terapi., 1912, xi, No. 1.

Exclusion of the duodenum. AVONI. Bull. d. Sc. med., 1912, xii, No. 12.

The remote results in operations upon the stomach and duodenum. C. CRANE. N. Eng. M. Gaz., 1913, xlviii, 16.

The use of a Murphy button to effect duodenojejunostomy after gastrojejunostomy. W. BARTLETT. Ann. Surg., Phila., 1913, lvii, 81. [374]

Arterio-mesenteric duodenal occlusion. H. VON HABERER. Ergebn. d. Chir. u. Orth., 1913, v, 467. [374]

A new case of jejuno-colic fistula due to a peptic ulcer of the jejunum following gastro-enterostomy. URRUTIA. Arch. d. mal. d. l'appar. dig. e. d. l. nutr., 1913, vi, 680. [375]

Acute intestinal obstructions. E. C. S. TALIAFERRO. Va. M. Semi-Month., 1913, xvii, 509.

Acute intestinal obstruction. L. C. WEEKS. St. Paul M. J., 1913, xv, 5.

A plea for the early recognition of acute intestinal obstruction, with report of cases. C. G. FLETCHER. Northwest Med., 1913, v, 14.

Intestinal obstruction; with a report of experimental work. J. L. CAMPBELL. J. M. Ass. Ga., 1913, ii, 292.

Chronic intussusception secondary to a passed crisis in appendicitis. WOLLIN. Prag. med. Wchnschr., 1913, xxxviii, No. 1.

Report of a case of intussusception in an eleven-months-old child. W. E. DICKEN. J. Okla. St. M. Ass., 1913, v, 375.

Intestinal occlusion caused by biliary calculi. MICHELEAU. Gaz. hebdom. d. sc. méd. d. Bord., 1913, xxxiv, No. 1.

Three laparotomies for volvulus of the intestine. KOCHANOFF. Chirourguia, 1912, xxxii, No. 190.

Visceral inversion. KROKIEWICZ. Przegl. lek., 1913, lii, No. 1.

Ileus due to Meckel's diverticulum. A. B. EUSTACE. Ann. Surg., Phila., 1913, lvii, 83.

Ileus caused by Meckel's diverticulum. FRICHBERG. Chir. Arch. Veliaminova, 1912, xxviii, No. 6

Early operation for perforation in typhoid. C. L. COLE. J. Am. M. Ass., 1913, lx, 122.

The treatment of intestinal perforation in typhoid fever. LANCE. Gaz. d. hôp., 1913, lxxxvi, No. 2.

Pathogenesis and diagnosis of subcutaneous ruptures of the intestine. KRYMOFF. Chirourguia, 1912, xxxii, No. 192.

A case of indirect rupture of the intestines. LAKOUBOVSKY. Chirourguia, 1912, xxxii, No. 190.

Multiple wounds of the intestine; laparotomy and intestinal sutures; recovery. GEORGESCU. Gaz. méd., 1912, No. 14, Dec.

Chronic intestinal invasion by lipomata. GIORGI. Clin. chir., 1912, xxi, No. 12.

Malignancy of intestine. W. G. MOOREHOUSE and H. FOX. Ellingwood's Therap., 1913, vii, 1.

Two primary carcinomata which developed at the site of old tuberculous intestinal ulcers; contributions to the histogenesis of cancer. HERZOG. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1913, lv, No. 2.

Enterostomy performed on the small intestine to counteract paralytic ileus in diffuse peritonitis. LEWICKI. Przegl. lek., 1913, lii, No. 1.

Successful removal of over eleven feet of small intestine. E. R. MCGUIRE. Surg., Gynec. & Obst., 1913, xvi, 40. [375]

Intestinal motility: concerning the action of physical agents on the movements of the intestine. KATSCH and BORCHERS. Ztschr. f. exp. Pathol. u. Therap., 1913, xii, No. 2.

Contributions to the study of intestinal movements; report No. 2. KATCH, GERHARDT and BORCHERS. Ztschr. f. exp. Pathol. u. Therap., 1913, xii, 237. [376]

Radiological exploration in surgical affections of the stomach and the intestine. BECLÈRE and MÉRIEL. Ann. internat. d. chir. gastro-intestinale, 1912, vi, No. 3.

Method and technique of examining occult blood in the gastro-intestinal canal. BOAS. Berl. klin. Wchnschr., 1913, l, No. 4.

Cæcum mobile; radiological findings. KIENBOCH. München. med. Wchnschr., 1913, lx, No. 2.

Acute intestinal obstruction due to volvulus of the cæcum. P. R. WRIGLEY. Lancet, Lond., 1913, clxxxiv, 166. [376]

Volvulus of the cæcum and the small intestine in strangulated hernia. SYRING. Beitr. z. klin. Chir., 1913, lxxxii, No. 3.

Operative mobilization of the cæcum in appendectomy, with notes on Kofmann's article, "Concerning the exclusion of the appendix." KRUGER. Zentralbl. f. Chir., 1913, xl, No. 2.

The morphological significance of the pericæcal and periappendicular peritoneal folds in man. KOSTANECKI. Przegl. lek., 1913, lii, No. 1.

Appendicitis. J. B. FRASER. Canad. Pract. & Rev., 1913, xxxviii, 21.

The rôle of the appendix in indigestion. J. P. RUNYAN. J. Ark. M. Soc., 1913, ix, 181.

Appendicitis caused by oxyuris. RHEINDORF. Med. Klin., 1912, ix, Nos. 2–3.

Appendicitis a tuberculous disease. SABOURIN. J. d. Praticiens, 1913, xxvi, No. 2.

Complication of appendicitis caused by internal strangulation of the intestine by the appendix itself. KRYMOFF. Chirourguia, 1912, xxxii, No. 192.

Appendix abscesses discharging pus into the urinary tract. C. L. ANDREWS. Va. M. Semi-month., 1913, xvii, 499. [377]

Primary cancer of the vermiform appendix. J. GRAHAM. Edinb. M. J., 1913, x, 30. [377]

A case of post-traumatic appendicitis. DANIEL. Prog. méd., 1913, xli, No. 2.

Report of four cases of appendicitis associated with foreign bodies—coal, grape seed, oxyuris, bismuth. J. W. PRICE, JR. Ky. M. J., 1913, xi, 66.

Appendicitis with symptoms of the diseases of the urinary tract. J. D. WHITESIDE. J.-Lancet, 1913, xxxiii, 1.

Differential diagnosis of appendicitis. MAYER. J. méd. d. Brux., 1913, xviii, No. 2.

Observations upon the diagnosis and treatment of appendicitis. G. LINK. Indianapolis M. J., 1913, xvi, 1.

The treatment of acute appendicitis. C. D. BROOKS. J. Mich. St. M. Soc., 1913, xii, 21.

Modern treatment of acute appendicitis. A. W. WILLIAMS. Mil. Surgeon, 1913, xxxii, 86.

A self-inverting suture for the appendix stump. W. BARTLETT. Surg., Gynec. & Obst., 1913, xvi, 98.

A simple method of introducing the purse-string suture for covering the stump of the appendix. C. H. PARKS. J. Am. M. Ass., 1913, lx, 29. [377]

Exclusion of the appendix. NEUGEBAUER. Zentralbl. f. Chir., 1913, xl, No. 3.

A review of the last 150 cases of appendicitis in Sacred Heart Hospital. S. M. HOHF. J.-Lancet, 1913, xxxiii, 3.

Development of mucous membrane of large intestine and vermiform process in human embryo. F. P. JOHNSON. Am. J. Anatomy, 1913, xiv, 187.

Chronic invagination of the large intestine; intestinal resection., cure. POTEIENKO. Chirourguia, 1912, xxxii, No. 192.

The pathological torsions of the large intestines and their surgical treatment. DUROUX. Rev. d. Gynéc. et d. Chir. abdom., 1913, xix, 319. [378]

Surgical treatment of constipation. C. B. LYMAN. Colo. Med., 1913, x, 9.

Surgery often the best remedy for chronic constipation. C. S. ELDRIDGE. Internat. J. Surg., 1913, xxvi, 21.

A case of megacolon. TORDAY. Pester med.-chir., 1913, xlix, No. 3.

A case of megacolon of congenital origin cured by resection. FISCHER. Pester med.-chir., 1913, xlix, No. 3.

Cæcotomy for the removal of a hairpin impacted in the ascending colon. L. MCGAVIN. Lancet, Lond., 1913, lcxxxiv, 03.

Ulcerative colitis and its treatment. WEGELE. Med. Klin., 1913, ix, No. 3.

Surgical tuberculosis of the colon, rectum and anal canal. C. G. WATSON. Practitioner, 1913, xc, 220. [380]

Cæco-sigmoidostomy; an operation for short-circuiting the colon. F. C. YEOMANS. Am. J. Surg., 1913, xxvii, 23. [380]

The combined abdomino-dorsal extirpation of carcinoma of the rectum. HELLER. Ergebn. d. Chir. u. Orth., 1913, v, 488. [381]

Congenital stricture of the rectum. RECLUS. Presse méd., 1913, xxi, No. 4.

Needless traumatism in rectal surgery. W. H. STAUFFER. Med. Herald, 1913, xxxii, 16.

Concerning Professor Boas' new bloodless method of treating hæmorrhoids. CHVAT. Novoie v. Med., 1912, vi, No. 23.

The prophylaxis and treatment of hæmorrhoids by "anikure." KINDBORG. Deutsche med. Wchnschr., 1913, xxxix, 320.

Hæmorrhoids. L. WATSON. J. Okla. St. M. Ass., 1913, v, 345.

Considerations of the bismuth meal. A. S. NEWTON. Med. Press & Circ., 1913, cxlvi, 94.

Biological interpretation and surgical aspects in painful indigestion. GEO. W. CRILE. Lancet-Clin., 1913, cix, 94. [381]

The diagnosis of foreign bodies in the alimentary and respiratory tracts of children. I. S. HIRSCH. Am. J. Surg., 1913, xxvii, 1.

### Liver, Pancreas, and Spleen

Experimental hepatic cirrhosis and the pathogenesis of icterus, with special considerations of the lesions of the biliary capillaries in ligature of the ductus choledochus and in icterogenic intoxication. OGATA. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1913, lv, No. 2.

Congenital familial icterus. MALIWA. Deutsche med. Wchnschr., 1913, xxxix, No. 4.

Casuistics of subcutaneous ruptures of the liver. FLATH. München. med. Wchnschr., 1913, lx, No. 2.

Non-parasitic cyst of the liver. LISSIANSKY and LIOUDKEVITCH. Roussk. Vratch, 1913, xii, No. 1.

Hydatid cyst of the liver; extirpation by the transthoracic path; closure without drainage. BERTRAND. Marseilles méd., 1913, l, No. 2.

Two abnormal cases of abscess of the liver. MASINI. Sud méd., 1913, xlvi, No. 1956.

Abscess of the liver and of the abdominal wall due to the paratyphoid bacillus. PUJOL. Provence méd., 1913, xxvi, No. 3.

Transduodenal hepatic drainage. HORZ. Berl. klin. Wchnschr., 1913, l, No. 4.

A case of rare tumor of the gall-bladder. MARCORA. Policlin., Roma, 1913, xx, No. 1.

A case of congenital defect of the cystic duct due to a mechanical cause. ELPERIN. Frankf. Ztschr. f. Pathol., 1913, xii, 25. [382]

Surgery of the gall-bladder and ducts. R. C. DUGAN. J.-Lancet, 1913, xxxiii, 36. [382]

Operations upon the gall-bladder and bile ducts: a report of cases. H. ROTH. Internat. J. Surg., 1913, xxvi, 2.

Etiology and pathology of infections of the biliary tract. C. C. NESSELRODE. Med. Herald, 1913, xxxii, 12. [382]

Biliary drainage. C. B. SPAULDING. Ky. M. J., 1913, xi, 55.

Cholecystitis as a complication of pellagra. H. F. HARRIS. J. M. Ass. Ga., 1913, ii, 283.

Paratyphoid cholecystitis; with report of a case. J. B. GUTHRIE. New Orleans M. & S. J., 1913, lxv, 496.

Gallstones. B. MOYNIHAN. Brit. M. J., 1913, i, Jan.

Symptomatology and diagnosis of gallstones; indications for surgical treatment. FINK. Prag. med. Wchnschr., 1913, xxxviii, 1. [383]

Gallstones with glycosuria. F. C. BUTCHEL. Denver M. Times, 1913, xxxii, 329.

The diagnosis of gallstone lodged in the common duct. W. F. CHENEY. J. Am. M. Ass., 1913, lx, 171.

Further contributions to the medical treatment of cholelithiasis. SCHURMAYER. Wien. klin. Rundschau, 1913, xxvi, 52.

A general consideration of gallstone disease. W. D. FARRELL. J.-Lancet, 1913, xxxiii, 33.

A case of acquired obliteration of the hepatic duct. SAMBORSKY. Chirourguia, 1912, xxxii, No. 132.

A rare case of cystadenoma of the extrahepatic bile ducts. BARBERIO. Policlin., Roma, 1913, xx, No. 1.

The methodical dilatation of the papilla duodeni and the choledochoduodenal drainage. HOFMEISTER. Zentralbl. f. Chir., 1913, xl, No. 5. [383]

Surgical treatment of cholelithiasis and pancreatitis. T. K. OATES. West Va. M. J., 1913, vii, 224.

Acute necrosis of the pancreas. SANTINI. Bull. d. Sc. med., 1912, xii, No. 12.

Acute inflammation of the pancreas. FAYKISS. Beitr. z. klin. Chir., 1913, lxxxii, No. 3.

Three cases of pancreatitis, with two recoveries. A. MACLENNAN. Glasgow M. J., 1913, lxxix, Jan.

Primary cancer of the pancreas; a histological and physiological study. GELLE. Arch. d. méd. expér. et d'anat. path., 1913, xxv, Jan.

Contusions of the pancreas. HAGEDORN. Zentralbl. f. Chir., 1913, xl, No. 4.

Pancreatic lymphangitis and chronic pancreatitis. J. B. DEAVER. J. Am. M. Ass., 1913, lx, 1. [384]

The pathology of Banti's disease. GROSSER and SCHAUB. München. med. Wchnschr., 1913, lx, No. 2.

Contusion of the abdomen in the left flank and rupture of the spleen. FRIANT. Arch. d. méd. et d. pharmac. milit., 1912, lx, No. 12.

A splenectomy for laceration of the spleen. CHARRIER and BARDON. Ann. internat. d. chir. gastro-intestinale, 1912, vi, No. 3.

Splenomegaly with hepatic cirrhosis during the ascitic period; splenectomy and Talma's operation; a contribution to the study of chronic splenothrombotic splenomegaly. TANSINI and MORONE. Riforma med., 1913, xxix, No. 1.

Traumatic rupture of the spleen; splenectomy. A. M. FAUNTLEROY. Ann. Surg., Phila., 1913, lvii, 68.

Rupture of the spleen and liver; operation; recovery. W. H. EVANS. Lancet, Lond., 1913, clxxxiv, 14.

Spontaneous rupture of the malarial spleen. L. NOLAND and F. C. WATSON. Ann. Surg., Phila., 1913, lvii, 72. [385]

Splenectomy in a case of Banti's disease. BUZI. Riv. Osp., 1912, ii, No. 24.

Operative treatment of Banti's disease. GOEBEL. Klin.-therap. Wchnschr., 1913, xx, No. 3.

### Miscellaneous

Cohesion, elasticity and firmness of the abdomen. SELLHEIM. Beitr. z. Geburtsh. u. Gynäk., 1913, xviii, No. 1.

Gunshot wounds penetrating the abdomen and implicating the stomach and the kidney. TOURNEUX. Bull. méd., 1913, xxvii, No. 4.

Laparotomy at the patient's home. STERN. München. med. Wchnschr., 1912, lix, No. 53.

Laparoplastic surgery (Morestin's method). BAZY. J. d. Praticiens, 1913, xxvi, No. 1.

Post-operative complications of the abdominal section. R. S. FOWLER. J. M. Soc. N. J., 1913, ix, 380.

Visceral syphilis. HAUSMANN. Samml. Zwangl. Abhandl. a. d. Geb. d. Verd. u. Stoffw.-Krankh., 1913, iv, No. 5. [385]

## SURGERY OF THE EXTREMITIES

### Diseases of the Bones, Joints, etc.

Inflammation of bone. M. C. MCGANNON. South. Pract., 1913, xxxv, 12.

Considerations on osteomyelitis. MAYET. Paris chir., 1912, iv, No. 9.

A post-variolic osteomyelitic syndrome. CANGE. Prov. méd., 1912, xxv, No. 52.

Typical osteomyelitis in nurslings. ÉTIENNE and AIMES. Prog. méd., 1913, xli, No. 3.

The use of the blow torch and large autodermic grafts in the treatment of acute and subacute osteomyelitis. C. E. TENNANT. Denver M. Times, 1913, xxxii, 322. [386]

A case of osteomalacia. JOUKOVA-FLORENSOVA. J. akouch. i jensk. bolez., 1913, xxviii, No. 12.

Osteomalacia treated by means of castration. KALMYKOFF. J. akouch. i jensk. bolez., 1913, xxviii, No. 12.

Experiments on metabolism in osteomalacia. ZUNTZ. Arch. f. Gynäk., 1913, ix, No. 1.

Cold abscesses and chronic osteitis due to staphylococci; hot abscesses and acute osteitis due to Koch's bacillus. ABADIE. Arch. prov. d. Chir., 1912, xxi, No. 12.

Chronic bone abscesses. JOHN DICKENSON. Ohio St. M. J., 1913, ix, 19.

The symptomatology of rachitis and osteomalacia in Japan. OGATA. Beitr. z. Geburtsh. u. Gynäk., 1913, xviii, No. 1.

Contribution to the study of rickets. RIBBERT. Deutsche med. Wchnschr., 1913, xxxix, No. 1.

Rickets and its treatment. WIELAND. Schweiz. Rundsch. f. Med., 1913, xiii, 313. [385]

A case of metastasis in the femur of normal fœtal thyroid tissue. C. B. G. DE NANCREDE. Phys. & Surg., 1913, xxxv, 19. [386]

Giant celled sarcoma at the lower end of the femur. SCHWARTZ. Rev. d'Orthop., 1913, iv, 71. [386]

Multiple plasmacytoma of the bones; likewise a contribution to the study of myelomata. WARSTAT. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1913, lv, No. 2.

Köhler's disease of the os naviculare pedis. WOHLAUER. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Observation on bone regeneration. BIER. Arch. f. klin. Chir., 1912, c, No. 1.

Negative pressure in the large long bones of the dog. FELTEN STOLTZENBERG. München. med. Wchnschr., 1913, lx, No. 3.

Congenital hereditary ankylosis of the interphalangeal joints. MORGENSTERN. Beitr. z. klin. Chir., 1913, lxxxii, No. 3.

Clinical studies concerning neoformations in the hip joint subsequent to resection. SCHMIEDEN and ERKES. Arch. f. klin. Chir., 1912, c, No. 1.

A simple apparatus for the treatment of ankylosis of the hip joint. WEISZ. München. med. Wchnschr., 1912, lix, No. 53.

The treatment of phlegmons of the upper limb. HAUN. München. med. Wchnschr., 1912, lix, No. 53.

Infected knee joint. H. SHOEMAKER. N. Y. M. J., 1913, xcvii, 25.

Heliotherapy of peripheral tuberculosis, especially of the joints. BARDENHEUER. Strahlentherapie, 1912, i, No. 3.

The trypsin treatment of surgical tuberculosis. WILHELM BÄTZNER. Practitioner, 1913, xc, 203. [386]

Experiences with mesbé in the treatment of surgical tuberculosis. BUTZENGREGER. München. med. Wchnschr., 1913, lx, 128. [387]

Tuberculous diseases of bone and joints. ROBT. JONES. Practitioner, 1913, xc, 182.

Periodic intermittent hydrarthrosis. CHIRAY and MICHELOWSKY. Paris méd., 1913, ii, No. 6.

Primary benign tuberculous pyarthrosis without bone lesions. CHALIER and NAURIN. Rev. d'Orthop., 1913, iv, 41. [387]

The classification of arthritis. JNO. MCWILLIAMS BERRY. Surg., Gynec. & Obst., 1913, xvi, 54. [387]

Nature of arthritis deformans. AXHAUSEN. Allg. med. Zentralbl., 1913, lxxxii, 47. [388]

Observations on an interesting case of rheumatoid arthritis. O. S. WIGHTMAN. Am. Med., 1913, xix, 20.

Gonorrhœal rheumatism in arthritic subjects. Its clinical forms and their treatment. J. DARDEL. Med. Rec., 1913, lxxxiii, 150. [388]

Treatment of gonorrhœal rheumatism. C. W. NORTON. Calif. M. & S. Rep., 1913, ix, 15.

Gonorrhœal rheumatism. F. S. CLARK. Iowa M. J., 1913, xix, 334.

Congenital radio-ulnar synostosis. BAISCH. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Injuries of the ligamenta cruciata of the knee joint. PURCKHAUER. München. med. Wchnschr., 1913, lx, 73. [388]

Etiology and genesis of Otto's protrusion from the acetabulum. BREUS. Wien. klin. Wchnschr., 1913, xxvi, 167. [388]

Contributions to the anatomy and pathology of striated muscle fiber; experimental studies on ischæmic muscular paralysis and muscular contracture. KROH. Deutsche Ztschr. f. Chir., 1913, cxx, Nos. 3–4.

Muscle degeneration and osteoma. L. RYAN. Illinois M. J., 1913, xxiii, 71. [388]

Primary sarcoma of both biceps muscles. E. SCOTT-CARMICHAEL. Brit. M. J., 1913, i, Jan.

Myositis ossificans traumatica. W. E. STEVENS. J. Am. M. Ass., 1913, lx, 203.

A case of spontaneous gangrene of the left arm. VILLAR. J. d. méd. d. Bord., 1913, xliii, No. 1.

Pronation and supination of the forearm in traumatic lesions. DESTOT. Presse méd., 1913, xxi, No. 5.

### Fractures and Dislocations

On fractures. T. H. OPENSHAW. Clin. J., 1913, xli, 225.

Treatment of fractures. V. F. MARSHALL. Wis. M. J., 1913, xi, 251.

New ideas on the treatment of fractures. MAGNUS. Med. Klin., 1913, ix, Nos. 1–2.

Colles' fracture. DUNCAN EVE. South. Pract., 1913, xxxv, 7.

Separation of the epiphysis of the upper extremity of the humerus. KIRMISSON. J. d. Praticiens, 1913, xxvi, No. 1.

A case of fracture of the surgical neck of the humerus and anterior luxation of the head of the humerus. GARCIA HURTADO. Rev. Ibero-Am. d. Cienc. med., 1912, xxviii, No. 100.

A case of a rare form of fracture of the elbow. DEROIDE. Rev. d'Orthop., 1913, iv, No. 1.

The treatment of fractures about the elbow joint. G. SIMPSON. Clin. J., 1913, xli, 257.

Longitudinal fracture of the lower extremity of the radius. R. C. PARRISH. J. Am. M. Ass., 1913, lx, 123.

Extension in fractures of the forearm. G. W. MIEL. Denver M. Times, 1913, xxxii, 331.

Paralyses which develop after extension in the treatment of fractures of the thigh. WEICHERT. Berl. klin. Wchnschr., 1913, l, No. 1.

Typical fractures of the atrophic femur. BRANDES. Beitr. z. klin. Chir., 1913, lxxxii, No. 3.

Separation of the superior epiphysis of the femur, which was recognized and reduced three weeks after the accident. JOUON. Rev. d'Orthop., 1913, iv, No. 1.

Coxa vara; its relation to fractures and separations of the epiphysis of the superior extremity of the femur. JUDET. Rev. d'Orthop., 1913, iv, No. 1.

Fracture of the femoral neck: its anatomic treatment. C. E. RUTH. Albany M. Ann., 1913, xxxiv, 1. [389]

Fixation of the thigh and the hip in a pendular apparatus for the knee. MOSENTHAL. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Old fracture due to tearing of the tendon of the crural quadriceps; arthrotomy; osteotenorrhaphy; cure with conservation of good function of the knee joint. CASSANELLO. Riv. Osp., 1913, iii, No. 1.

Extension by means of adhesive plaster with the knee joint in semiflexion. STEINMANN. Zentralbl. f. Chir., 1913, xl, No. 2.

Rupture or sprain fracture of the ligamentum patellæ. W. H. LUCKETT. Ann. Surg., Phila., 1913, lvii, 122.

Elastic extension in the region of the lower limbs. SCHÖNENBERGER. München. med. Wchnschr., 1912, lix, No. 53.

Fracture of the carpal navicular. L. W. ELY. Denver M. Times, 1913, xxxii, 310.

The combination of "congenital" luxation of the head of the radius with Little's disease. KUNNE. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Pathogenesis and pathological anatomy of recurring dislocation of the shoulder. GRÉGOIRE. Rev. d'Orthop., 1913, iv, 15. [389]

A rare case of luxation in the talo-navicular (astragalo-scaphoid) joint. NOBE. Deutsche Ztschr. f. Chir., 1913, cxx, Nos. 3–4.

Complete subastragaloid internal dislocation of the foot without perforation of the skin. PATEL and VIANNAY. Rev. d'Orthop., 1913, iv, 1. [390]

### Surgery of the Bones, Joints, etc.

Surgery of the bones. CHIAOLANZA. München. med. Wchnschr., 1912, lix, No. 53.

Bone transplantation. PETROFF. Chir. Arch. Veliaminova, 1912, xxviii, No. 6.

A consideration of 76 operations in which Lane bone plates were used. W. BARTLETT. Boston M. & S. J., 1913, clxviii, 149. [391]

Three important dont's in bone plating. G. P. COOPERNAIL. Med. Rec., 1913, lxxxiii, 111.

Treatment of ununited fractures. R. H. DUNN. West Va. M. J., 1913, vii, 234.

The current treatment of fractures of the upper third of the forearm with luxation of the superior extremity of the radius. ABADIE. Presse méd., 1913, xxi, No. 6.

Open fractures of the lower extremity of the humerus in a child six years of age; union of the bones by means of quilled suture; excellent results. BRAU-TAPIE. Gaz. hebdom. d. sc. méd. d. Bord., 1913, xxxiv, No. 1.

The callus; repeated fractures; osteoclasis. BROCA. J. d. Praticiens, 1913, xxvi, No. 3.

Treatment of fractures of the patella and of the olecranon by means of subcutaneous suture. CHAPUT. Presse méd., 1913, xxi, No. 7.

Experimental contribution to the study of cuneiform osteoplastic grafts. GAZZOTTI. Policlin. Sez. Chir., 1913, xix, 536. [391]

Plastic operations of the elbow in cases of old posterior luxations. BOGORAZ. Chir. Arch. Veliaminova, 1912, xxviii, No. 6.

A wound on the left elbow; secondary phlegmon; multiple nervous lesions and deformities of the forearm; graft of the forearm and hand of a monkey. BROHEE. Bull. d. l'Ass. méd. belge d. accid. d. trav., 1913, ix, No. 4.

Transplantation of the thigh in the dog. JIANU. Wien. klin. Rundschau, 1913, xxvii, No. 2.

Tuberculous osteo-arthritis of the knee; exposure of the bone; cure. GALLOUEN. Normandie méd., 1913, xxix, No. 1.

Arthrodesis of the tibio-tarsal joint. SCHÖNENBERG. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Epiphyseal osteoplastic amputation of the tibia subgenu as a substitute for disarticulation of the knee joint. FRANKE. Zentralbl. f. Chir., 1913, xl, No. 3.

Transplantation of bone fractures. C. P. THOMAS. Calif. M. & S. Rep., 1913, ix, 9.

Restoring mobility after bony ankylosis of the joints. TUNSTALL TAYLOR. Penn. M. J., 1913, xvi, 294. [392]

The surgical treatment of retrocalcanean bursitis (Albert's disease). CHAS S. WHITE. Va. M. Semi-Month., 1913, xvii, 487.

The technique of my operation for the cure of spastic paralysis. STÖFFEL. München. med. Wchnschr., 1912, lix, No. 53.

Observations on tendon transplantation operations. H. P. H. GALLOWAY. Surg., Gynec. & Obst., 1913, xvi, 84. [392]

Modern treatment of osseous and articular tuberculosis. DE QUERVAIN. Semaine méd., 1913, xxxiii, No. 1.

## ORTHOPEDIC SURGERY

### Diseases and Deformities of the Spine

Contribution to the study of spina bifida. SAALMANN. Deutsche Ztschr. f. Chir., 1913, cxx, Nos. 3–4.

Congenital sacral tumors and spina bifida with division of the spinal cord into two parts. MARCOFF. Chirourguia, 1912, xxxii, No. 190.

Ankylosis of the spine. A. MCGLANNAN. Old Dominion J. M. & S., 1913, xvi, 1. [393]

Curvature of the spine during school age and the battle against it in Germany. FROUMINE. Vratch. Gaz., 1912, xix, No. 44.

Static scoliosis. DOERR. Ztschr. f. orth. Chir., 1913, xxxi, 1. [393]

Casuistics of congenital scoliosis. KAUFFMANN. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Treatment of scoliosis by means of exercise. BECKER. Med. Klin., 1913, ix, No. 4.

Spastic paraplegia with the cutaneous reflex of defense occurring in Pott's disease. E. M. AUER. J. Am. M. Ass., 1913, lx, 200. [394]

Surgical treatment of paraplegia in tuberculous spondylitis. LEVITE. Chirourguia, 1912, xxxii, No. 190.

The use of plaster of Paris in the mechanical treatment of tuberculous disease of the spine. H. J. GAUVAIN. Practitioner, 1913, xc, 190.

The circulation of the cerebrospinal fluid and its application to therapeutics. NEGRI. Clin. chir., 1912, xxi, No. 12.

Case of operated spinal cord tumor. EBERS. Deutsche med. Wchnschr., 1913, xxxix, 70. [394]

Acute anterior poliomyelitis and accident. MOHR. Monatschr. f. Unfallheilk. u. Invalidenwesen, 1912, xix, No. 12.

Fracture of atlas; spontaneous extrusion of fragment through the mouth; recovery. PARK. Buffalo M. J., 1913, lxviii, 312. [394]

Symptoms and diagnosis of lesions of cauda. HASKOVEC. Wien. med. Wchnschr., 1913, lxiii, 29. [395]

The treatment of spasmodic paraplegias. GUILLAIN. Paris méd., 1913, ii, No. 7.

An anatomic explanation of many of the cases of weak or painful backs, as well as of many of the leg paralyses. J. E. GOLDTHWAIT. Boston M. & S. J., 1913, clxviii, 128. [395]

### Malformations and Deformities

Is there any prophylaxis against physical deformities in children? DELCHEF. Le scalpel et liège méd., 1913, lxv, No. 27.

Madelung's deformity. TRILMICH. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

The treatment of reflex spastic pes valgus. ANZOLETTI. Zentralbl. f. chir. u. mechan. Orth., 1913, vii, No. 1.

A case of coxa valga subluxans congenitale. LANCE. Rev. d'Orthop., 1913, iv, No. 1.

The bifid hand. LALLEMANT. Fortschr. a. d. Geb. d. Röntgen., 1913, xix, No. 5.

Bloodless treatment of congenital luxation of the hip joint; a new arthrogoniometer. GALEZZI. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Orthopedic principles for use in general practice. J. W. SEVER. Boston M. & S. J., 1913, clxviii, 1. [396]

Orthopedic operations for correction and stability of the foot in flaccid and spastic paralysis. ARTHUR STEINDLER. Iowa M. J., 1913, xix, 323.

The technique of bandaging club-foot. MOHRING. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Structure and mechanics of the normal foot and of the flat-foot. BAISCH. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

Claw-foot, and how to relieve it. A. M. FORBES. Surg., Gynec. & Obst., 1913, xvi, 81. [396]

## SURGERY OF THE NERVOUS SYSTEM

A contribution to the treatment of sciatica by means of epidural injections. LANGBEIN. Deutsche med. Wchnschr., 1913, xxxix, No. 1.

A case of trophoneurotic symmetrical lipomatosis secondary to a traumatism of the spine; trophic lipomata. MARIMON. Rev. d. Cienc. Med. d. Barcelona, 1912, xxxviii, No. 12.

Paralysis of the trapezius from injury of spinal accessory nerve, and recovery. H. L. JONES. Proc. Roy. Soc. M., 1913, vi, 37.

Symptoms simulating Klumpke's paralysis following an accident. WEISS. Aerztl. Sachverst. Ztschr., 1913, xix, 31. [396]

Results of surgery of the cervical sympathetic nerve in Basedow's disease according to the method of Professor Jaboulay. CHALIER. Prov. méd., 1913, xxvi, No. 1.

On a new method of treating painful dysphagia in tuberculosis and cancer of the larynx by resection of the interior branch of the superior laryngeal nerve. CHALIER. Prog. méd., 1912, xli, No. 1.

The relief of intractable and persistent pain due to metastases pressing on nerve plexuses by section of the opposite anterolateral column of the spinal cord, above the entrance of the involved nerves. EDWIN BEER. J. Am. M. Ass., 1913, lx, 267. [396]

The relief of gastric crises in tabes dorsalis by rhizotomy. FRAZIER. Am. J. M. Sc., 1913, cxlv, 116. [397]

## DISEASES AND SURGERY OF THE SKIN AND APPENDAGES

Diagnosis of the varieties of cutaneous epitheliomata; its prognostic value. PEYRI. Rev. d. Med. y Cir., 1912, xxvi, No. 12.

The oncologic position of so-called "calcified" epithelioma of the skin. LANDAU. Ztschr. f. Krebsforsch., 1913, xii, No. 3.

Experimental researches on the production of atypical epithelial proliferations and atypical proliferations of the mucous membranes. HAGA. Ztschr. f. Krebsforsch., 1913, xii, No. 3.

The effect of intravenous infusions with aurumkalium cyanatum (Merck) in external tuberculosis and syphilis. BRUCK and GLÜCK. München. med. Wchnschr., 1913, lx, 57. [397]

Carbuncle. H. E. STROUD. Calif. M. & S. Rep., 1913, ix, 18.

Heliotherapy for torpid, especially tuberculous, tumors of the skin. THEDERING. Strahlentherapie, 1912, i, No. 3.

Repair of old cutaneous wounds by means of grafts after the method of Ollier-Thiersch. HERAIL. Bull. méd. d. l'Algérie, 1912, xx, No. 20, xxi, No. 1.

Radium and mesothorium treatment of skin disease. SAALFELD. Berl. klin. Wchnschr., 1913, l, 166. [397]

The application of free fascia transplants. NEUDÖRFER. Zentralbl. f. Chir., 1913, xl, 44. [397]

## MISCELLANEOUS

### Clinical Entities—Tumors, Ulcers, Abscesses, etc.

On tumor formation and allied pathological processes. A. J. BROCK. Edinb. M. J., 1913, x, 42.

Researches on the biology of tumors in animals. LEWIN. Berl. klin. Wchnschr., 1913, l, No. 4.

New experiments on the production of tumors by means of autogenous or heterogenous embryonic cells. KELLING. Wien. klin. Wchnschr., 1913, xxvi, Nos. 1–2.

Fundamental problems in the study of tumors. VAN DUYSE. Ann. d. l. Soc. d. Méd. d. Gand, 1912, iii, No. 3.

What are the conditions for transmission of mouse tumor? RAPP. Ztschr. f. Krebsforsch., 1913, xii, No. 3.

Experiment with transmission of mouse cancer to rabbits. STRAUCH. Ztschr. f. Krebsforsch., 1913, xii, No. 3.

Early recognition of cancer. W. NEILL. West Va. M. J., 1913, vii, 229.

Origin and nature of cancer. JABOULAY. Prov. méd., 1913, xxvi, No. 3.

The carcinoma problem. BASHFORD. Deutsche med. Wchnschr., 1913, xxxix, No. 4. [398]

The prophylaxis of carcinoma. THEILHABER. Wien. klin. Wchnschr., 1913, xxvi, No. 10. [398]

Treatment of inoperable cancer. A. P. GOULD. Lancet, Lond., 1913, clxxxiv, 215. [398]

Germinative plasma and cancer. LABBE. Gaz. méd. d. Nantes, 1913, xxxi, No. 3.

Association of cancer and tuberculosis in metastatic affections of the glands. KRISCHE. Frankf. Ztschr. f. Pathol., 1913, xii, No. 1.

A singular case of cancerous fever. MARCHESINI. Bull. d. Sc. med., 1912, xii, No. 12.

The effect of sublimate and of boric acid on the transplantation and development of cancer in white mice. WRZOSEK. Prog. méd., 1913, xli, No. 3.

The non-operative treatment of cancer according to the principles observed in the Heidelberg "Samariterhaus." KAFEMAN. Med. Klin., 1913, ix, 161. [399]

Surgery for cancer; its technique and its results. LASTARIA. Arch. Ital. d. Ginec., 1913, xv, No. 12.

The epithelial tumors of mice; also general considerations on the pathogenesis and development of tumors. STROGAVONA. Ztschr. f. Krebsforsch., 1913, xii, No. 3.

Growth centers of benign blastomata with especial reference to thyroid and prostatic adenomata. B. T. SIMPSON. J. Med. Research, 1913, xxvii, 269. [400]

A case of multiple melanosarcomata. MATCH. Pract. Vratch, 1912, xi, No. 51.

Malignant growths. R. H. BOGGS. N. Y. M. J., 1913, xcvii, 178.

The significance of the spleen during the growth of malignant tumors and the influence of splenic pulp on tumors. OSER and EGON. Ztschr. f. exp. Pathol. u. Therap., 1913, xii, 295. [400]

The presence of nucleohiston in malignant tumors and tuberculomata. DE VEYLDER. Ann. d. l. Soc. d. Méd. d. Gand, 1912, iii, No. 3.

Superficial metastatic growths in the diagnosis of deep-seated malignant tumors. W. W. BABCOCK. N. Y. M. J., 1913, xcvii, 109. [401]

The purines and purine metabolism of tumors, and chemical relations of primary and secondary tumors. WELLS and LONG. Ztschr. f. Krebsforsch., 1913, xii, No. 3.

Circumscript tumor formations caused by abdominal fat necrosis and subcutaneous splitting of fats. KÜTTNER. Berl. klin. Wchnschr., 1913, l, 9. [401]

Localized amyloid tumor. SCHÖNHOF. Frankf. Ztschr. f. Pathol., 1913, xii, No. 1.

A case of hydatid. CHEFTEL. Vratch. Gaz., 1912, xix, No. 37.

The development of neoplasms under the influence of the industry of synthetic colors. LEUENBERGER. Semaine méd., 1913, xxxiii, No. 3.

The treatment of neoplasms by means of colloidal solutions of the heavy metals combined with choline. TRINKLER. Chirourguia, 1912, xxxii, No. 190.

A case of lymphoma which resembled an endothelioma. KNIASKOFF. Frankf. Ztschr. f. Pathol., 1913, xii, No. 1.

Fixation abscess. L. DE SAVAREL. Med. Press & Circ., 1913, xcv, 68.

Erysipelas. Y. TAKAKI. Sei-i-Kwai M. J., 1913, xxxii, 1.

Latent erysipelas. SCHLESINGER. Deutsche med. Wchnschr., 1913, xxxix, No. 3.

The treatment of erysipelas by means of an hermetic dressing. BEZSONOFF. Vratch. Gaz., 1912, xix, No. 39.

The pathogenesis of the glandular or secondary form of infantile tuberculosis. J. RITTER. Illinois M. J., 1913, xxiii, 58.

Malum perforans in diabetes mellitus: a report of seven cases. J. T. SAMPLE and W. L. GORHAM. Bull. Johns Hopkins Hosp., 1913, xxiv, 28. [402]

The etiology of rabies. F. PROESCHER. N. Y. M. J., 1913, xcvii, 15. [402]

The negri bodies in rabies. E. M. WATSON. J. Exp. Med., 1913, xvii, 29. [402]

Gangrene occurring from status epilepticus; death from sapræmia. E. A. THURLOW. J. Okla. St. M. Ass., 1913, v, 377.

Spontaneous gangrene of the index finger and symmetrical gangrene. HARTTUNG. Berl. klin. Wchnschr., 1913, l, No. 4.

Shock. A. H. TUBBY. Clin. J., 1913, xli, 193.

Shock. A review of the theories and experimental data to date. E. H. RISLEY. Boston M. & S. J., 1913, clxviii, 112. [402]

Symptoms and treatment of shock. P. P. VINSON. Hosp. Bull. Univ. Md., 1913, viii, 211.

The treatment of surgical shock. J. M. WELLS. Internat. J. Surg., 1913, xxvi, 14.

Traumatic shock and the employment of blood pressure estimation in its prevention and treatment. Jos. C. BLOODGOOD. Internat. J. Surg., 1913, xxvi, 1.

A case of muscular dystrophy after an accident. MARCUSS. Monatschr. f. Unfallh. u. Invalidenwesen, 1913, xx, 18. [403]

On distention of connective tissues. HAUBERRISSER-SCHÖNFELD. Arch. f. exper. Path. u. Pharm., 1913, lxxi, No. 2.

Artificial activation of the growth in vitro of connective tissue. ALEXIS CARREL. J. Exp. Med., 1913, xvii, 14. [403]

Tissue cultures of grown animals in vitro. DILGER. Deutsche Ztschr. f. Chir., 1913, cxx, 243. [403]

Wound diphtheria and wound diphtheroid. ZULLIG. Beitr. z. klin. Chir., 1913, lxxxii, No. 3.

A case of tetanus treated by intravenous injections of paraldehyde and copious injections of normal saline resulting in cure. O. ATKEY. Lancet, Lond., 1913, clxxxiv, 168. [404]

Röntgen ray therapy in actinomycosis. LEVY. Zentralbl. f. Chir., 1913, xl, No. 4.

A method to demonstrate isolated actinomyces. KÄSTNER. Berl. tierärztl. Wchnschr., 1913, xxix, 77. [404]

Concerning the technique of extraction of foreign bodies. FELTENSTOLZENBERG. Zentralbl. f. Chir., 1913, xl, No. 2.

Ionic sterilization in surgical tuberculosis. G. BETTON MASSEY. Am. J. Surg., 1913, xxvii, 15.

### Sera, Vaccines and Ferments

Normal human blood serum in the treatment of hæmorrhagic diseases of infants and children. J. E. WELCH. N. Y. M. J., 1913, xcvii, 125. [404]

Contribution to the treatment of anæmia by intramuscular injections of defibrinated human blood. ZUBRZYCKI. Wien. klin. Wchnschr., 1913, xxvi, 95. [404]

Inhibition of hæmolysis by the serum of cancerous individuals. W. O. SWEEK and M. S. FLEISHER. J. Med. Research, 1913, xxvii, 383. [405]

A series of accidental symptoms developing after injections of antitetanic serum. DORNIER. Arch. d. méd. et d. pharmac. milit., 1912, lx, No. 12.

Serodiagnosis of cancer. IZABOLINSKY and DYCHNO. Vratch. Gaz., 1912, xix, No. 38.

A clinical report of the complement fixation test in gonorrhœa. H. L. ROCKWOOD. Cleveland M. J., 1913, xii, 1.

The clinical value of the gonorrhœa complement fixation test. V. D. LESPINASSE and MAURICE WOLFF. Illinois M. J., 1913, xxiii, 26.

Origin and action of hæmolytic complement. G. F. DICK. J. Infectious Diseases, 1913, xii, Jan.

Vaccination therapy. WOLFF-EISNER. Berl. klin. Wchnschr., 1913, l, 310.

Vaccines and vaccine therapy. H. L. ULRICH. J. Lancet, 1913, xxxiii, 39. [405]

Principles and advanced methods in vaccine therapy. F. M. WOOD. Illinois M. J., 1913, xxiii, 30.

Vaccinotherapy of gonococcic affections. GERCHOUNE and FINKELSTEIN. Vratch. Gaz., 1912, xix, No. 40.

A modification of the staphylococci vaccine. WOLFSOHN. Deutsche med. Wchnschr., 1913, xxxix, No. 3.

The effect of hypersensitiveness to a tuberculoprotein upon subsequent infection with bacillus tuberculosis. CHAS. R. AUSTRIAN. Bull. Johns Hopkins Hosp., 1913, xxiv, 11. [405]

Infection and immunity. G. P. MÜLLER. Internat. J. Surg., 1913, xxvi, 9.

Immunity through tuberculosis infection. G. E. BUSHNELL. Mil. Surg., 1913, xxxii, 29.

The rôle of albumin in anaphylaxis. HARTOCH. Petersb. med. Ztschr., 1913, xxxviii, 1. [406]

The anaphylactic reaction of plain muscle in the guinea pig. DALE. J. Pharm. & Exp. Therap., 1913, iv, 167. [406]

Occurrence of an isolated antibody in cerebrospinal fluid. L. HEKTOEN. J. Infect. Diseases, 1913, xii, Jan.

### Blood

The accumulation of eosinophile leucocytes in the tissues, especially in cancer. FISCHER. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1912, lv, No. 1.

An experimental study of emigration of leucocytes in inflammation. YATSUSHIRO. Frankf. Ztschr. f. Pathol., 1913, xii, 80. [407]

A high degree of blood eosinophilia observed in the case of a cancerous female patient and in a case of lymphogranuloma. STRISOWER. Wien. klin. Wchnschr., 1913, xxvi, No. 1.

Presence of tubercle bacili in the blood during the course of surgical tuberculosis. KRABBEL. Ztschr. p. Chir., 1913, cxx, 370. [408]

Some remarks on the diagnostic value of hæmatological examinations. JOHN M. SWAN. Interst. M. J., 1913, xx, 19.

A method of blood estimation. ELLERMANN. Arch. f. klin. Med., 1913, cix, 378.

Uric acid determination in the urine and blood. SCHNELLER. Ztschr. f. exp. Pathol. u. Therap., 1913, xii, 341. [408]

Hæmorrhage of the new-born. S. G. MOORE. West Va. M. J., 1913, vii, 232.

A new theory of blood coagulation. NOLF. Ergebn. d. inn. Med. u. Kinderh., 1913, x, 275. [408]

The therapy of so-called uncontrollable hæmorrhage in infancy. BLUHDORN. Berl. klin. Wchnschr., 1913, l, 14. [408]

The increased gravity of operative hæmorrhages in cases of congenital stenosis of the aortic system. MELCHIOR. Deutsche med. Wchnschr., 1913, xxxix, No. 4.

Treatment of hæmorrhage by means of precipitated blood sera. C. H. A. CLOWES and F. C. BUSCH. N. Y. M. J., 1913, xcvii, 16. [409]

Hæmophilia treated by human blood serum. A. H. TRAVER. J. Am. M. Ass., 1913, lx, 44.

A case of hæmolytic jaundice with splenomegaly. FLETCHER MCPHEDRAN and HAROLD ORR. Canad. M. Ass. J., 1913, iii, 14. [409]

The etiology of hæmophilia. POTELAIEFF. Vratch. Gaz., 1912, xix, No. 45.

A case of thrombosis of the right iliac vein extending to the inferior vena cava. OSTI. Bull. d. Sc. med., 1912, xii, No. 12.

Gangrene of the left lower member due to embolism ensuing in the course of a latent mitral stenosis; timely amputation; death caused by pulmonary infarct; anatomico-pathological findings. MÜLLER. Loire méd., 1912, xxxi, No. 12.

A case of death from air embolism which developed during the course of a prostatectomy. MARION. J. d'Urol., 1913, ii, No. 1.

A case of death from air embolism following injection of air into the bladder. NICOLICH. J. d'Urol., 1913, ii, No. 1.

Sudden death due to embolism ensuing upon a neglected fracture of the neck of the femur in a man 48 years of age. JULIEN. Echo méd. d. nord, 1913, xvii, No. 2.

Post-operative pulmonary embolisms. MAUCLAIRE. Prog. méd., 1913, xli, No. 2.

Concerning blood in the spinal fluid. GEISSLER. München. med. Wchnschr., 1913, lx, 121. [410]

Transfusion. N. H. CHAMBERLAIN. Calif. St. J. M., 1913, xi, Jan.

Blood transfusion. DE FOURMESTRAUX. Arch. méd.-chir. d. Prov., 1912, vii, No. 12.

Blood transfusion; its history in Denmark and Norway; its technique and indications for it. HANSEN. Nordisk Tidskr. f. Terapi., 1912, xi, Nos. 1–2.

Anæmia caused by hæmorrhage. MILNE. Arch. f. klin. Chir., 1913, clx, 401. [410]

The transfusion of blood. C. GEORG and O. M. COPE. Phys. & Surg., 1913, xxxv, 1.

Hæmophilia and its treatment with rhodalcid. FRANKE. Deutsche zahnärztl. Wchnschr., 1913, x, 65. [411]

### Blood and Lymph Vessels

Phlebitis in typhoid fever. SABELLA. Morgagni, 1913, lv, 97. [411]

The resistance of the arteries to the processes of suppuration. PALAZZO. Riforma med., 1913, xxix, No. 1.

Diagnosis and treatment of aneurisms of the external carotid and of the internal carotid. LIEBAUD and CLAVAUD. Arch. gén. d. Chir., 1912, vi, No. 12.

Ligation of the common carotid. SMOLER. Beitr. z. klin. Chir., 1913, lxxxii, No. 3.

Rare indications for ligature of the left common carotid. EISENGRÄBER. Med. Klin., 1913, ix, No. 2.

Arterial suture. VOGEL. Wien. med. Wchnschr., 1913, lxiii, No. 1.

A note on some experimental researches on arteriovenous anastomoses. JIANU and MELLER. Spitalul, 1912, xxxii, No. 20.

Vascular anastomosis. Personal technique. PORTA. Presse méd., 1913, xxi, No. 8.

Technique for suturing vessels of small caliber. DOBROVOLSKAIA. Chirourguia, 1912, xxxii, No. 190.

Treatment of vascular obliterations. VILLARD and PERRIN. Lyon chir., 1913, lx, No. 1.

Surgical treatment of varicose veins of the lower limbs VAQUIE. Presse méd., 1913, xxi, No. 2.

A simple device for a homogeneous intravenous flow. ROHDE. Ztschr. f. biol. Techn. u. Methodik., 1913, iii, 85. [411]

The treatment of tuberculous adenopathies. JAUGEAS. Paris méd., 1913, ii, No. 5.

Attempted lymphatic derivation in the treatment of elephantiac conditions of the limbs. LENORMANT. Presse méd., 1913, xxi, No. 6.

Primary tuberculous elephantiasis. DANIEL. Monatschr. f. Geburtsh. u. Gynäk., 1913, xxxvii, No. 1.

### Poisons

Sepsis. J. U. FAUSTER. Med. Council, 1913, xviii, 13.

Acute local infections. C. E. COLWELL. Clinique, 1913, xxxiv, 7.

Cryptogenetic septico-pyæmia. W. F. MILROY. Med. Herald, 1913, xxxii, 1.

Double infection with the human and bovine types of bacillus tuberculosis. P. A. LEWIS. J. Am. M. Ass., 1913, lx, 202.

General gonococcus infection in male child without evidence of urethritis. M. NICOLL and M. A. WILSON. J. Infectious Diseases, 1913, xii, Jan.

A fatal case of gonococcus septicæmia. G. A. RUECK. Med. Rec., 1913, lxxxiii, 18.

Easy method for cultivation of gonococcus. G. F. CLARK. U. S. N. Med. Bull., 1913, vii, Jan.

On the classification of the streptothrices, particularly in their relation to bacteria. EDITH J. CLAYPOLE. J. Exp. Med., 1913, xvii, 99. [411]

A preliminary communication on the pathogenicity and virulence of bacteria. F. H. THIELE. Lancet. Lond., 1913, clxxxiv, 234. [411]

Delayed chloroform poisoning. H. H. THOMPSON. Ellingwood's Therap., 1913, vii, 6.

### Surgical Therapeutics

The treatment of inoperable cancer of the uterus. W. O. STEVENSON. Canad. Pract. & Rev., 1913, xxxviii, 1.

Some experiments with ionic medication. N. S. FINZI. J. Rönt. Soc., 1913, ix, 5. [412]

Colloidal solutions and the therapeutic application of electric colloids. CHAS. H. NEILSON. Interst. M. J., 1913, xx, 27.

Further observations on the treatment of human cancer with intravenous injections of colloidal copper. L. LOEB, H. N. LYON, C. B. MCCLURG and W. O. SWEEK. Interst. M. J., 1913, xx, 9. [412]

The influence of intravenous injections of various colloidal copper preparations upon tumors in mice. L. LOEB, M. S. FLEISHER, W. E. LEIGHTON and O. ISHII. Interst. M. J., 1913, xx, 16. [412]

Vanadium selenium in cancer. F. VON OEFELE. N. Y. M. J., 1913, xcvii, 78.

Chemotherapy of malignant tumors. MEINCKE. Deutsche Aerzte-Zeit., 1913, 1. [413]

Cancer: its external treatment. THOS. S. BLAIR. Med. Council, 1913, xviii, 18.

Results obtained in the treatment of surgical tuberculosis by means of injections of nucleinate of soda. BOUTKEVITCH. Chirourguia, 1912, xxxii, No. 132.

Iodine vapors in osteo-arthropathies. RIOSALIDO. Rev. Ibero-Am. d. Cienc. med., 1912, xxviii, No. 100.

Tincture of iodine in the treatment of cold abscesses. CAMERA. Gior. d. l. R. Accad. d. Med. d. Torino, 1912, lxxv, Nos. 10–11.

The employment of camphorated oil in surgery. BAUDET. Prov. méd., 1913, xxvi, No. 1.

### Surgical Anatomy

The structure of the calcaneus. REINER. Ztschr. f. orth. Chir., 1912, xxxi, Nos. 1–2.

The centers of ossification in the fœtal human pelvis. OBATA. Ztschr. f. Geburtsh. u. Gynäk., 1912, lxxii, No. 3.

Persistent hyaloid artery. L. M. BOWES. J. Am. M. Ass., 1913, lx, 173.

### Electrology

What every physician should know concerning radiology. D'HALLUIN. J. d. sc. méd. d. Lille, 1913, xxxvi, No. 3.

The Röntgen-ray in the diagnosis and control of fractures. JAS. W. HUNTER. Va. M. Semi-Month., 1913, xvii, 486.

The diagnosis of gastric and œsophageal affections by X-ray methods. A. E. BARCLAY. Med. Chronicle, 1913, lvii, 188. [413]

Gastro-intestinal diagnosis from the X-ray standpoint. HENRY K. PANCOAST. Va. M. Semi-Month., 1913, xvii, 481.

The diagnostic value of gastric antiperistalsis of the stomach. M. HAUDEK. Arch. Rönt. Ray, 1913, xvii, 312. [413]

Röntgen ray treatment of epitheliomata. BAISCH. Strahlentherapie, 1912, i, No. 3.

A new technique for X ray therapy. E. H. Linnell. N. Am. J. Homeop., 1913, xxviii, 24. [414]

The Röntgen ray in intrathoracic goiter and thymus hyperplasia. A. Crotti. J. Am. M. Ass., 1913, lx, 117. [414]

An account of the results obtained with radiotherapy in Stockholm from 1910 to 1912. Forssell. Nord. Tidskr. f. Terapi, 1912, xi, No. 1.

Radium and thorium-X therapy. Carl Von Noorden. Med. Rec., 1913, lxxxiii, 95. [414]

What are we to hold concerning therapy by means of radium emanations? Bickel. Paris méd., 1913, ii, No. 6.

The radium emanation and its therapeutic employment. Wickam and Degrais. Paris méd., 1913, ii, No. 5.

Chemical imitation of the action of rays, and its employment as a re-enforcement of radiotherapy. Werner and Ascher. Strahlentherapie, 1913, i, No. 4.

Electrical accidents from the clinical and forensic standpoint. S. Jellinek. Arch. Rönt. Ray, 1913, xvii, 291.

### Surgical Diagnosis

Examination of the cerebrospinal fluid, particularly with reference to the precipitin reaction. O. Berghausen. Interst. M. J., 1913, xx, 38.

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# GYNECOLOGY

### Uterus

Cancer of the uterus. H. J. Boldt. N. Y. M. J., 1913, xcvii, 8. [415]

Report of a case of carcinoma of the uterus in a girl 18 years of age. Edwin B. Cragin. Am. J. Obst., N. Y., 1913, lxvii, 114. [415]

Post-operative treatment after radical operation for cancer of the neck of the uterus. Bumm. Zentralbl. f. Gynäk., 1913, xxxvii, No. 1.

On the question of radical abdominal operation for cancer of the uterus. Kriwsky. J. akouch. i jensk. bolez., 1913, xxviii, No. 12.

Case of adenomyoma uteri. J. B. Hellier. Lancet, Lond., 1913, clxxxiv, 230.

Chorio-epithelioma and hydatiform mole. Vautrin and Hoch. Bull. d. l. Soc. Obst. e. d. Gynéc., 1912, No. 8, 940. [415]

Post-climacteric myosarcoma of the uterus. Ogoreck. Arch. f. Gynäk., 1913, ix, No. 1.

Phlebitis in the development of fibromata of the uterus. Duvergey. Rev. d. Chir., 1913, xxxiii, No. 1.

Uterine fibroids. W. H. Coe. N. Y. St. J. M., 1913, xiii, 40.

The treatment of uterine fibroids. H. R. Chislett. Clinique, 1913, xxxiv, 1.

Some complications of uterine fibroids commanding early diagnosis and immediate operation. J. E. Sadlier. Am. J. Obst., N. Y., 1913, lxvii, 89. [415]

The X-ray treatment of uterine fibroids. Strassman. Therap. d. Gegenwart, 1913, liv, 24. [416]

The modern treatment of myomata. Friedrich Schauta. Wien. med. Wchnschr., 1913, lxviii, 13. [416]

Uterine myoma (18½ lbs.) and gallstones (1150). Jno. R. Wathen. Ky. M. J., 1913, xi, 68.

The technique of X-ray treatment of myomata. Kienbock. Fortschr. a. d. Geburtsh. d. Röntgen., 1913, xix, 5.

Results obtained in Röntgen ray treatment of myomata. Alsberg-Schönberg. Fortschr. a. d. Geburtsh. d. Röntgen., 1913, xix, 5.

Reports of uterine malformations. E. M. Prince. J. Am. M. Ass., 1913, lx, 174.

Treatment of uterine malformations by laparotomy. Goullioud. Ann. d. Gynéc. e. d'Obst., 1912, ix, 593, 691, and 726. [416]

A case of metrorrhagia due to hæmophilia. Landa. Vratch. Gaz., 1912, xix, No. 45.

Virginal metrorrhagia; their causes and their treatment. Plicque. Bull. méd., Paris, 1913, xxvii, No. 4.

Climacteric hæmorrhages and prophylaxis against cancer. Lehmann. Zentralbl. f. Gynäk., 1913, xxxvii, No. 2.

Röntgen rays in the treatment of metrorrhagia. Watrin. Le scalpel et liège méd., 1913, lxv, No. 28.

Concerning the causes, the treatment, and the medico-legal importance of violent traumatisms of the uterus. Bretschneider. Monatschr. f. Geburtsh. u. Gynäk., 1913, xxxvii, No. 1.

A case of enormous vaginal eventration in a hysterectomized subject. Santoro. Arch. Ital. di. Ginec., 1912, xv, No. 12.

The surgical treatment of retrodisplacement of the uterus. Ogden. St. Paul M. J., 1913, xv, 20.

Uterine inversion. Slaski. Med. i. kron. lek., 1913, xlviii, No. 1.

Surgical treatment of complete prolapse of the uterus. R. C. Norris. Penn. M. J., 1913, xvi, 300.

The surgical treatment of prolapse of the uterus. C. M. Barrows. N. Y. St. J. M., 1913, xiii, 32. [417]

The treatment of prolapsus of the genital organs. Abadie. Arch. mens. d'obst. e. d. gynéc., 1912, i, No. 12.

### Adnexal and Periuterine Conditions

The action of X-rays on proliferating ovarian tumors. Eymer. Strahlentherapie, 1913, i, 3.

Etiology, pathology, and treatment of ovarian cysts in relation to child-bearing, with special reference to hæmorrhage into the cysts. W. C. Jones. Surg., Gynec. & Obst., 1913, xvi, 63. [418]

The toxicity of the contents of ovarian cysts with twisted pedicle. Lefèvre. Gynéc., Paris, 1912, xvi, No. 12.

Voluminous multilocular cyst of an ovary in a young woman 15 years of age. Kirmisson. Bull. méd., Paris, 1913, xxvii, No. 7.

Hæmatoma of the ovary; origin and clinical significance. Seedorf. Hosp.-tid., 1913, lvi, No. 4. [418]

A case of ovaritis associated with metrorrhagia. Le Blaye. Arch. méd.-chir. d. Provence, 1912, vii, No. 12.

Rupture of a hæmorrhagic corpus luteum into a broad ligament cyst. G. Luker. Proc. Roy. Soc., M., 1913, vi, 66.

Relationship of the time of corpus luteum formation and menstruation. Meyer and Ruge II. Zentralbl. f. Gynäk., 1913, xxxvii, 50. [419]

Conservative surgery of the uterine adnexa. J. B. Haskins. J. Tenn. St. M. Ass., 1913, v, 362.

The technique of tubal sterilization. F. J. Taussig. Surg., Gynec. & Obst., 1913, xvi, 92.

Salpingitis. W. T. Joyner. N. Mex. M. J., 1913, ix, 102.

Pathogenesis of hydrosalpingian inflammatory tuberculosis. Roux De Brignoles and Gautier. Arch. prov. d. Chir., 1912, xxi, No. 12.

Tubal hæmatoma. H. MacNaughton-Jones. Proc. Roy. Soc. M., 1913, vi, 67.

Concerning toxicity and retardation of blood in intraperitoneal hæmorrhages from ruptured tubes. Els. Arch. f. Gynäk., 1913, ix, No. 1.

A new method of intraperitoneal shortening of the round ligaments. Langes. Zentralbl. f. Gynäk., 1913, xxxvii, No. 1.

Ventrofixation of the round ligaments by subperitoneal conduction through the broad ligaments. Dührssen. Gynäk. Rundschau, 1913, vii, No. 1.

### Vagina

Three cases of vaginal tumors. Stratz. Gynäk. Rundschau, 1913, vii, No. 1. [419]

Report of a case of absence of vagina and its reconstruction. E. F. Tucker. Northwest Med., 1913, v, 19.

Operative technique for the creation of an artificial vagina. Grégoire. Arch. gén. d. Chir., 1912, vi, No. 12.

Vesico-vaginal fistula cured by aponeurotic graft. Schmid. Ztschr. f. Gynäk. u. Urol., 1913, iv, No. 1.

A case of hæmatoma of the vagina and vulva with subsequent death from hæmorrhage. Römer. Zentralbl. f. Gynäk., 1913, xxxvii, 131. [419]

The cause of the persistence of gonorrhœal vulvovaginitis in children. Rubin and Leopold. Am. J. Dis. Child., 1913, v, 58. [419]

Cancer of the vulva. Rupprecht. Ztschr. f. Geburtsh. u. Gynäk., 1912, lxxii, 3.

Pruritus vulvæ. Arthur Stein. Urol. & Cutan. Rev., 1913, xvii, 22.

Recurrent menstrual diphtheria of the vulva. Penkert. Med. Klin., 1913, ix, 100. [420]

Perineal hæmatoma secondary to scarlet fever. Hering. Deutsche med. Wchnschr., 1913, xxxix, No. 1.

Intra-abdominal myorrhaphy of the levatores ani in prolapse of the uterus. Jianu. Gaz. med., Bucuresi, 1912, No. 13.

Therapy of gonorrhœa. Ehrl. Wien. med. Wchnschr., 1913, lxiii, 274. [420]

### Miscellaneous

Renal agenesia and bicornate uterus with vaginal septa. Gaitschman. J. akouch. i jensk. bolez., 1913, xxviii, No. 12.

Duplication of bladder, uterus, vagina and vulva, with successive full-time pregnancy and labor in each uterus. Gemmell and Paterson. J. Obst. & Gynec. Brit. Emp., 1913, xxiii, 25. [420]

The action of adrenalin on the ovaries and uterus of some mammalia. Stefko. Fortsch. d. Med., 1913, xxxi, 67. [420]

Migration of tampon into the bladder after a Schauta-Wertheim operation for prolapsus. Stöckel. Ztschr. f. gynäk. Urol., 1913, iv, No. 1.

Psychopathy in diseases of the ovaries and uterus. Bossi. Beitr. z. Geburtsh. u. Gynäk., 1913, xviii, 136. [420]

The relation between breast and ovary with respect to the internal secretion. Cohn. Monatschr. f. Geburtsh. u. Gynäk., 1913, xxxvii, 93. [421]

Acute tuberculosis following gynecological procedure. Prochownick. Zentralbl. f. Gynäk., 1913, xxxvii, 7. [421]

The theory and practice of the treatment of sterility in women. Edw. Reynolds. J. Am. M. Ass., 1913, lx, 93. [422]

Treatment for sterility in women. Funck-Brentano and Plauchu. Gynéc., Paris, 1912, xvi, No. 12.

Premature menstruation, sexual maturity and growth-development. Lenz. Arch. f. Gynäk., 1913, ix, No. 1.

The real rôle of puberty and its embryogenetic character. Codin. Prog. méd., Paris, 1913, xli, No. 3.

The transverse suprapubic incision in gynecology. Rouffart and Potvin. J. méd. de Bruxelles, 1913, xviii, No. 3.

Concerning the paths of propagation of post-operative infection in the female urinary organs. Bauereisen. Ztschr. f. gynäk. Urol., 1913, iv, No. 1.

Cystoscopy and catheterization of the ureters for diagnosis in gynecology. Gorwitz and Ipatoff. J. akouch. i jensk. bolez., 1913, xxviii, No. 12.

Technique and results obtained with Röntgen ray treatment in gynecology. Köhler. Fortschr. a. d. Geburtsh. d. Röntgen., 1913, xix, 408. [422]

Röntgen rays in gynecology. Frankel. Fortschr. a. d. Geburtsh. d. Röntgen., 1913, xix, 412. [423]

Urinary tract infections in women. D. Hadden. Calif. St. J. M., 1913, xi, Jan.

Diagnosis and operative treatment of genital diseases of female insane subjects. Schultze. Med. Klin., 1913, ix, No. 1.

Syphilis of the internal female genital organs. Meyer. Deutsche med. Wchnschr., 1913, xxxix, 169.

The occurrence of hernia in the abdominal wall after the Killian operation for retrodisplacement. Oastler. Am. J. Obst., N. Y., lxvii, 145. [423]

Hernia through the pelvic outlet. E. Montgomery. Surg., Gynec. & Obst., 1913, xvi, 20.

The treatment of pelvic inflammation by autoinoculation. H. Chapple. Lancet, Lond., 1913, clxxxiv, 165. [423]

The treatment of chronic pelvic affections. Hasse. Zentralbl. f. Gynäk., 1913, xxxvii, No. 4.

Defects in the development of Müller's ducts. Kermauner. Ztschr. f. Geburtsh. u. Gynäk., 1913, lxxii, No. 3.

Synthetic hydrastinin hydrochloricum. Dührssen. Berl. klin. Wchnschr., 1913, i, 64. [423]

Synthetic hydrastinin and its use. Offergeld. Berl. klin. Wchnschr., 1913, i, 62. [423]

The historical evolution of gynecology. Daniel. Spitalul, 1912, xxxii, No. 22.

The rôle of ptosis in gynecology. R. M. Green. Boston M. & S. J., 1913, clxviii, 12.

My experience with and my technique in gynecological radiotherapy. Schmidt. Fortsch. a. d. Geburtsh. d. Röntgen., 1913, xix, 5.

The basis of radiotherapy in gynecology. Meyer. Strahlentherapie, 1912, i, 3.

The technique of gynecological radiotherapy. Lorey. Fortschr. a. d. Geburtsh. d. Röntgen., 1913, xix, 5.

Gynecological radiotherapy. Loose. Fortschr. a. d. Geburtsh. d. Röntgen., 1913, xix, 5.

A clinical contribution to the pathology of gynecological radiotherapy. Krinski. Strahlentherapie, i, 4.

The technique of radiotherapy in gynecology. Heynemann. Strahlentherapie, 1912, i, 3.

A case of atresia hymenalis with a large accumulation of secretion in the uterus. Schröder. Frauenarzt, 1913, xxviii, 2. [424]

Gastrocoloptosis. T. Rövsing. Ann. Surg., Phila., 1913, lviii, 1. [424]

# OBSTETRICS

## Pregnancy and Its Complications

Extra-uterine pregnancy. KAKOUCHKINE. J. akouch. i jensk. bolez., 1913, xxviii, No. 12.

The early diagnosis of extra-uterine pregnancy. R. S. FOWLER. N. Y. St. J. M., 1913, xiii, 38.

Concerning a case of extra-uterine pregnancy at term operated during labor. BOQUEL. Arch. méd. d'Angers, 1913, xvii, No. 1.

Extra-uterine pregnancy with living fœtus. PLANCHU. Bull. d. l. Soc. d' Obst., e. d. Gynéc. d'Lyon, 1913, No. 8, 004. [425]

The cases of extra-uterine pregnancy operated in the clinic. STRINA. Ginec., Milano, 1913, ix, No. 14.

One hundred and eight cases of extra-uterine pregnancy which were subjected to operative treatment. TZEITLINEA. Vratch. Gaz., 1913, xix, Nos. 45 and 47.

Report of five cases operated on a second time for extra-uterine pregnancy. S. MCGUIRE. Old Dominion J. M. & S., 1913, xvi, 14.

A new type of ectopic gestation; pregnancy in adenomyoma uteri. T. O. DÖDERLEIN and MAXIMILIAN HERZOG. Surg., Gynec. & Obst., 1913, xvi, 14. [425]

An unusual gestation. J. K. FREEMAN. Kentucky M. J., 1913, xi, 68.

Ovarian gestation. OLDFIELD. J. Obst. & Gynec. Brit. Emp., 1913, xxiii, 41. [425]

Tubal gestation; rupture of a gravid tube into a broad ligament cyst. H. WILLIAMSON. Proc. Roy. Soc. M., 1913, vi, 65.

A case of tubal pregnancy coincident with uterine pregnancy. DESGOUTTE. Lyon chir., 1913, ix, No. 1.

Pseudo-eclampsia. CROOM. Lancet, Lond., 1913, clxxxiv, 35. [426]

Prophylaxis and treatment of eclampsia. R. T. LA VAKE. J.-Lancet, 1913, xxxiii, 44. [426]

A critical study of eclampsia and anaphylaxis. LIEPMANN. Gynäk. Rundschau, 1913, vii, 55. [426]

The treatment of eclampsia. ZWEIFEL. Monatschr. f. Geburtsh. u. Gynäk., 1913, xxxvii, 1. [426]

Treatment of toxæmia of pregnancy. J. M. MCGAVEN. Merck's Arch., 1913, xv, 18.

A new method of treating the toxæmia of pregnancy. G. P. SHEARS. Med. Rec., 1913, lxxxiii, 66.

Toxicodermia of pregnancy treated with Ringer's solution. EICHMANN. München. med. Wchnschr., 1913, lx, 183. [427]

Cæsarean section. M. D. DELANEY. Va. Med. Semi-Month., 1913, xvii, 502.

An unusual indication for Cæsarean section. ALFRED GORDON. N. Y. M. J., 1913, xcvii, 14.

The extraperitoneal Cæsarean section. HAUCH. Nordisk Tidskr. f. Terapi, 1913, xi, No. 2.

Active treatment in febrile and septic abortion. KASASHIMA. Beitr. z. Geburtsh. u. Gynäk., 1913, xviii, 73. [427]

The bacteriology of febrile abortion. BONDY. Zentralbl. f. d. ges. Gynäk. u. Geburtsh., 1913, i, 89.

A case of spontaneous rupture of the pregnant uterus. BEYER. München. med. Wchnschr., 1913, lx, No. 1.

Hydrocephalus complicated by eclampsia, fibroids and a contraction ring. FLORENCE WILLEY. Proc. Roy. Soc. M., 1913, vi, 86.

Uterine fibroids complicating pregnancy. RALPH WALDO. N. Y. St. J. M., 1913, xiii, 36.

Ovarian tumors complicating pregnancy, delivery, and the puerperium. CHANNING W. BARRETT. Surg., Gynec. & Obst., 1913, xvi, 28. [427]

Report of a case of uterine myofibromata, accompanied by pregnancy. A. L. HATHCOCK. Texas St. J. M., 1913, viii, 242.

Glycosuria in pregnancy. A. L. MCDONALD. Am. Pract., 1913, xlvii, 14. [428]

A case of intraperitoneal hæmorrhage from a pregnant uterus. ABRAMOVITCH and CHOR. J. akouch. i jensk. bolez., 1912, xxviii, No. 12.

Surgical treatment of uterine hæmorrhage during pregnancy, delivery, and the puerperium. SEELIGMANN. Fortsch. d. Med., 1913, xxi, 91. [428]

A further report of the changes in the blood during eclampsia and nephritis of pregnancy. DIENST. Arch. f. Gynäk., 1913, xlv, 24. [429]

## Labor and Its Complications

The conduct of normal labor. C. E. BOYS. J. Mich. St. M. Soc., 1913, xii, 27.

Pituglandol in labor. JACOBY. Zentralbl. f. d. Therap., 1913, xxxi, 1. [429]

A case of dementia paralytica in labor. HARTUNG. Deutsche med. Wchnschr., 1913, xxxix, 72. [429]

The contraction ring as a cause of dystocia, with a description of a specimen removed by hysterectomy during labor. C. WHITE. Proc. Roy. Soc. M., 1913, vi, 70.

Occlusion of the rectum after delivery in a case of flat rachitic pelvis. RIECK. Zentralbl. f. Gynäk., 1913, xxxvii, 19. [430]

Occipito-posterior positions. RITTENHOUSE. Am. J. Clin. M., 1913, xx, 48.

The use of narcophin in obstetrics. JASCHKE. München. med. Wchnschr., 1913, lx, 72. [430]

## Puerperium and Its Complications

The management of puerperium. A. MCK. JONES. Texas St. J. M., 1913, viii, 239.

The pathogenesis of pyrexia in the puerperium. J. R. CONDON. Iowa M. J., 1913, xix, 330.

The operative treatment of puerperal sepsis. ASCH. Berl. klin. Wchnschr., 1913, l, 134. [430]

The rôle of pneumococci in puerperal infection. BONDY. Ztschr. f. Geburtsh. u. Gynäk., 1912, lxxii, No. 3.

Treatment of post-puerperal hæmorrhage. HUZARSKI. Med. i. kron. lek., 1912, xlviii, No. 4.

The treatment of puerperal phlebitis. VANVERTS and PAUCOT. Arch. mens. d'obst. e. d. gynéc., 1912, I, No. 12.

A case of post-partum suppuration of a dermoid cyst of the ovary. ROSENSTEIN. Vratch. Gaz., 1912, xix, 38.

A case of uncontrollable vomiting in retroversio uteri puerperalis. SPERLING. Zentralbl. f. Gynäk., 1913, xxxvii, No. 2.

## Miscellaneous

Some observations on the protein metabolism of normal pregnancy and the normal puerperium. JOHN R. MURLIN. Surg., Gynec. & Obst., 1913, xvi, 43. [430]

Some rare forms of contracted pelvis. MAYER. Beitr. z. Geburtsh. u. Gynäk., 1913, xviii, 53. [431]

Moderate degrees of pelvic contraction and their obstetric problems. F. E. LEAVITT. J. Am. M. Ass., 1913, lx, 4. [431]

The treatment of narrow pelves. ROTTER. Zentralbl. f. Gynäk., 1913, xxxvii, 52. [431]

Preliminary report of exact measurement of the pelvis by the X-ray. KEHRER. Zentralbl. f. Gynäk., 1913, xxxvii, 55. [432]

Ovum in relation to sterility and abortion. J. LINDSAY. Glasgow M. J., 1913, lxxix, No. 1.

A case of double deformity. HABERLE. Beitr. z. Geburtsh. u. Gynäk., 1913, xviii, 39. [432]

The Wassermann reaction during pregnancy and the puerperium. SARATEANU and VELICAN. Monatschr. f. Geburtsh. u. Gynäk., 1913, xxxvii, 89. [432]

A Monstrosity with Persisting Cloaca, Band-like Ovaries and other Genito-Urinary Defects. MARTIUS. Frankf. Ztschr. f. Pathol., 1913, xii, 47. [432]

Lithopedion; presentation of specimen; report of operation. C. P. FOX. J. Tenn. St. M. Ass., 1913, v, 351. [433]

Complete absence of milk in the primipara. F. REDER. Am. J. Obst., N. Y., lxvii, No. 421. [433]

Salvarsan in chorea gravidarum. HARTEL. München. med. Wchnschr., 1913, lx, 184. [433]

Sex determination in man. WEINBERG. Beitr. z. Geburtsh. u. Gynäk., 1913, xviii, 147. [433]

# GENITO-URINARY SURGERY

## Kidney and Ureter

Adrenal cortex, its rests and tumors; its relation to other ductless glands, and especially to sex. E. E. GLYNN. Quart. J. Med., 1913, v, No. 18.

Subcutaneous rupture of the kidney. F. C. BEALL. Med. Rec., 1913, lxxxiii, 64. [434]

A case of subcutaneous and subcapsular rupture of the kidney. HOBERMANN. Chir. Arch. Veliaminova, 1912, xxviii, No. 6.

Renal calculus. F. J. STEWARD. Guy's Hosp. Gaz., 1913, xxvii, 11.

A case of bilateral urinary lithiasis. H. L. KRETSCHMER. J. Am. M. Ass., 1913, lx, 114.

Urinary calculi. W. S. EHRICH. Urol. & Cutan. Rev., 1913, xvii, 31.

Albuminous urinary calculus in Bilharzia. PFISTER. Folia Urol., 1913, vii, No. 5.

Report of 110 cases of renal and ureteral calculi and of 10 cases simulating these conditions, with comments. F. S. WATSON. Boston M. & S. J., 1913, clxviii, 37.

Does anchoring the kidney relieve the neurosis? J. BECTON. Med. Herald, 1913, xxxii, 18.

Treatment of floating kidney by means of massage. DEWAERSEGGERS. Le scalpel et liège méd., 1913, lxv, No. 28.

Diagnosis of floating kidney by means of X-rays. ALEXANDER. Folia Urol., 1913, vii, No. 5.

Hæmorrhage in a floating kidney. GASPARI. J. d'Urol., 1913, ii, No. 1.

Dystopic kidney. S. C. PLUMMER. Surg., Gynec. & Obst., 1913, xvi, 1. [435]

Unilateral kidney hæmorrhage with reference to so-called essential hæmaturia. HERMAN L. KRETSCHMER. Surg., Gynec. & Obst., 1913, xvi, 34. [435]

The etiology of unilateral renal hæmaturia. A. RANDALL. J. Am. M. Ass., 1913, lx, 10.

The diagnosis of hæmorrhage in hydronephrosis. P. MARCHAIS. Am. J. Urol., 1913, ix, 15.

Unilateral hæmaturia in chronic nephritis. P. E. TRUESDALE. Boston M. & S. J., 1913, clxviii, 156. [436]

Further observations of ureteral obstruction or beginning of intermittent hydronephrosis. O. S. FOWLER. Colo. Med., 1913, x, 16.

Hydronephrosis of 30 liters, later diagnosed by physico-chemical examination of the fluid. MOSNY, JAVAL and DUMONT. J. d'Urol., 1913, ii, No. 1.

The diagnosis and indications for operation in early hydronephrosis. H. CABOT. J. Am. M. Ass., 1913, lx, 16.

A case of neoplasm of the remains of the Wolffian body simulating hypernephroma. J. H. PETTIS. Phys. & Surg., 1913, xxxv, 27. [436]

Clinical data on malignant renal tumors. W. F. BRAASCH. J. Am. M. Ass., 1913, lx, 274. [437]

The structure and histogenesis of congenital tumors of the kidney. DIENST. Ztschr. f. gynäk. Urol., 1913, iv, No. 1.

Fibromyo-endothelioma of the kidney capsule. HALLAS. Beitr. z. pathol. Anat. u. z. allg. Pathol., 1912, lv, No. 1.

Recent progress in medical renal disorders. C. K. AUSTIN. Med. Rec., 1913, lxxxiii, 15.

Obscure fever of renal origin. D. N. EISENDRATH. Chicago M. Recorder, 1913, xxxv, 43.

Experimental study of acute nephritis caused by sublimate, and its surgical treatment. MAZEL and MURARD. Lyon chir., 1913, ix, No. 1.

Bright's disease; repeated Edebohl's operation; symptoms of Basedow's disease at the end of life. PULAWSKI. Wien. med. Wchnschr., 1913, lxiii, No. 3.

Renal decapsulation in acute toxic nephritis. TISSERAND. Lyon chir., 1913, ix, 31. [437]

A case of renal dystopia combined with right pyelonephritis in pregnancy. EKLER. Ztschr. f. gynäk. Urol., 1913, iv, No. 1.

A case of bilateral perinephritic phlegmon. JIANU. Wien. klin. Rundschau, 1913, xxvii, No. 4.

Renal tuberculosis and orthostatic albuminuria. CASTAIGNE. J. d. Praticiens, 1913, xxvi, No. 2.

The renal seat of urinary tuberculosis can be deduced from the cytological examination of the sediment of the urine. BRANDEIS. Gaz. hebdom. d. sc. méd. d. Bord. 1913, xxxiv, No. 1.

Urinary and genito-urinary tuberculosis. E. H. FENWICK. Practitioner, 1913, xc, 234.

Some modern conceptions on urinary tuberculosis. BLANC. Bourgogne méd., 1912, xx, No. 12.

On gonorrhœal invasion of the kidney. TERRY M. TOWNSEND and JULIUS J. VALENTINE. Urol. & Cutan. Rev., 1913, xvii, 33.

Unilateral surgical kidney with pressure on the common duct, causing jaundice. C. VON WEDEL. J. Okla. St. M. Ass., 1913, v, 379.

The influence of the operation of resection of the kidney on the function of the organ. A report of experimental work on rabbits. H. J. CUNNINGHAM. J. Am. M. Ass., 1913, lx, 13.

Practical value of blood cryoscopy for the determination

of renal function. M. Krotoszyner and Geo. W. Hartmann. J. Am. M. Ass., 1913, lx, 188.

A study of the accuracy of the phenolsulphonephthalein test for renal function. J. T. Geraghty. J. Am. M. Ass., 1913, lx, 191.

The results of 200 chromo-ureteroscopies employing indigocarmin as a functional kidney test. B. A. Thomas. J. Am. M. Ass., 1913, lx, 185.

The present state of the diagnosis of the functional value of the kidneys. Henius. Deutsche med. Wchnschr., 1913, xxxix, No. 3.

Bleu's test and the constant of Ambard; a comparison of methods in the determination of the value of the kidney. Pierret, Arnould and Bénoit. Echo méd. d. nord, 1913, xvii, No. 3.

The ureo-secretory constant of Ambard; some clinical applications in urinary surgery. Gayet and Boulud. Lyon méd., 1913, cxix, No. 3.

Radiographic indications for pyelotomy. Arcelin and Rafin. Arch. d'électric. méd., expér. et clin., 1913, xxi, No. 349.

Neoplasms of the renal pelvis and ureter, with the report of a case. Chas. G. Cumston. Am. J. Urol., 1913, ix, 21.

Strictures of the ureter. Portner. Med. Klin., 1913, ix, No. 2.

A report of double congenital stricture of the left ureter with a movable calculus between the points of constriction. W. E. Lower. Am. J. Urol., 1913, ix, 27.

Congenital stenoses of the posterior portion of the ureter. Heinecke. Ztschr. f. Urol., 1913, vii, No. 1.

Two cases of total ureterectomy for cystic ureteritis. Lorenzani. Clin. chir., 1912, xxi, No. 12.

Ureteral catheterization with direct vision cystoscopy. Ferron. J. d'Urol., 1913, ii, No. 1.

The function of the uretero-vesical valve. An experimental study of the feasibility of ureteral meatotomy in human beings. J. W. Draper. J. Am. M. Ass., 1913, lx, 20.

Notes on the relation of the ureter to the inlet of the pelvis. Chalier and Murard. Lyon chir., 1913, ix, No. 1.

Polyuria as symptomatic of congenital atresia of the ureteral meatus in the adult. Ducastaing. J. d'Urol. 1913, ii, No. 1.

Typhlo-ureterostomy, after the resection of the cæcum and appendicostomy in the treatment of vesicular exstrophy. Taddei. Rev. d. Chir., 1913, xlvii, 37. [437]

The temporary deviation of the urine by the perineal or the hypogastric path in ureteral surgery. Barragan and Bonet. Rev. d. Med. y Cir. pract., 1913, xxxvii, No. 1250.

### Bladder, Urethra and Penis

Contracture of the neck of the bladder. Chas. H. Chetwood. J. Am. M. Ass., 1913, lx, 257. [438]

Diagnosis of hernia of the bladder. Bieliaieff. Vratch. Gaz., 1912, xix, No. 42.

Double inguinal hernia of the bladder. Cassanello. J. d'Urol., 1913, ii, No. 1.

Tumors of the bladder, with further case reports and review of the high frequency method of treatment. Chas. M. Harpster. Am. J. Surg., 1913, xxvii, 17.

A case of carcinoma of the bladder controlled by the high frequency current. Edw. L. Keyes. Surg., Gynec. & Obst., 1913, xvi, 70. [438]

Simple perforating ulcer of the bladder. Lefèvre. J. d'Urol., 1913, ii, No. 1.

Pseudotrichiasis of the bladder and pilimiction. Heller. Ztschr. f. Urol., 1913, vii, No. 1.

Membranous adhesions between the small intestine and the apex of the bladder cystoscopically diagnosed and demonstrated by laparotomy. Ottow. Ztschr. f. gynäk. Urol., 1913, iv, No. 1.

Capsules for permanent vesical fistulæ and for post-operative treatment of prostatectomized patients. Wossidlo. Med. Klin., 1913, ix, No. 4.

Diffuse perivesical phlegmon of prostatic origin. Legueu. J. d'Urol., 1913, ii, 1.

Vesical perforation by an intra-abdominal ligature silk. Grandjean. Folia Urol., 1913, vii, No. 5.

Exclusion of the bladder in reno-vesical tuberculosis. Böckel. Rev. méd. d. l'est, 1912, xliv, No. 24.

Two cases of tuberculous cystitis in the aged. Rochet. Lyon chir., 1913, ix, No. 1.

The present problem of tuberculous cystitis. Legueu. Bull. méd., 1913, xxvii, No. 5.

Endoscopic treatment of chronic ossifying cystitis. Pulido Martin. El Siglo med., 1912, lix, No. 3081.

Suture of the bladder after lithotomy in children. Frhr. v. Werthern. München. med. Wchnschr., 1913, lx, 134. [438]

Impermeable stricture of the bulbomembranous urethra. J. B. Deaver. J. Am. M. Ass., 1913, lx, 262.

Obstructions in urethra; removal. A. G. Douglas. South. M. J., 1913, vi, 53.

Comparison of internal and external urethrotomies for tight strictures of the male. Chas. A. Bucklin. Med. Rec., 1913, lxxxiii, 19.

Gumma of the urethra. W. P. Dey and J. L. Kirby-Smith. South. M. J., 1913, vi, 20.

Primary urethral cancer at the fossa navicularis. Ottow. Ztschr. f. Urol., 1913, vii, No. 1.

The value of gonosan in the treatment of urethral gonorrhœa. Geissler. Reichs Med. Anz., 1913, xxxviii, 35. [439]

The treatment of gonorrhœa and its complications. Bruck. Therap. Monatsch., 1913, xxvii, 1. [439]

The causal and symptomatic treatment of gonorrhœal processes in the male, in particular from the point of view of the original gonococci vaccine of Menzer. Erlacher. Deutsche med. Wchnschr., 1913, xxxix, No. 3.

The treatment of hypospadias. H. A. Lothrop. Boston M. & S. J., 1913, clxviii, 37. [439]

The clinical significance of urethroscopy. F. M. Oberlander. Am. J. Urol., 1913, ix, 1.

Etiology and treatment of priapism. Milonouchkine. Roussk. Vratch, 1912, xi, No. 1.

A case of double penis. Trenkler. Casopis lek. ceskych, 1912, li, No. 52.

Cancer of the penis; with report of case. Oliver Lyons. Denver M. Times. 1913, xxxii, 324.

Modern diagnosis and treatment of chancroids. Moses Scholtz. Urol. & Cutan. Rev., 1913, xvii, 27. [440]

### Genital Organs

Radical operation for malignant disease of the testis. S. Pringle. Lancet, Lond., 1913, clxxxiv, 21.

Experimental studies on the histological lesions of the testicle secondary to traumatism of the spermatic cord. Herrmann. Arch. d. méd. expér. et d'anat. path., 1913, xxv, No. 1.

Perineal testicular ectopia with strangulated inguinal hernia; radical cure; replacement of the testicle; recovery. Français. Arch. d. méd. d. enfants, 1913, xvi, No. 1.

A case of ablation of the penis and the scrotum for cancer after transplanting the testicles under the skin of the thigh. Bielitzky. Chirourguia, 1913, xxxii, No. 132.

Vasotesticular neostomia. Vassilieff. Vratch. Gaz., 1912, xix, Nos. 37–38.

Diffuse perivesicular abscess of prostatic origin. LEGUEU. J. d'Urol., 1913, iii, No. 1. [440]

The human prostate gland at birth; with a brief reference to its fœtal development. O. S. LOWSLEY. J. Am. M. Ass., 1913, lx, 110. [441]

Two cases of prostatic calculi. R. THOMPSON. Proc. Roy. Soc. M., 1913, vi, 49.

A new procedure for small prostatic bars and contracture of the prostatic orifice. H. H. YOUNG. J. Am. M. Ass., 1913, lx, 253. [441]

Concerning the prostatic elements in urethrorrhœa ex libidine. PFISTER. Deutsche med. Wchnschr., 1913, xxxix, No. 3.

Surgery of the prostate; with special reference to preparatory treatment and anæsthesia. F. J. PLONDKE. St. Paul M. J., 1913, xv, 1. [441]

One thousand cases of prostatectomy. FREYER. Am. J. Dermatol., 1912, xvi, 629. [442]

Immediate closure in perineal prostatectomy. A. E. HERTZLER. Surg., Gynec. & Obst., 1913, xvi, 94.

Prostatotomy by the method of Goldschmidt. CHAS. M. HARPSTER. J. Am. M. Ass., 1913, lx, 259.

Advantages of pubic incision over scrotal for varicocele operations. L. J. WELDON. Denver M. Times, 1913, xxxii, 332.

### Miscellaneous

Sexual impotency in the male. V. BLUM. Am. J. Urol., 1913, ix, 30.

Suppurative inguinal adenitis of venereal origin; observation with respect to remote results and their surgical cure and considerations on the treatment of their various forms. GAIDE and KERVRAUN. Ann. d'hyg. et d. méd. coloniales, 1912, xv, No. 4.

The treatment of bartholinitis. FAIVRE. J. sc. et méd. d. Poitiers, 1912, iv, Dec.

On a spectrum of phenolphthalein and its bearing on the spectroscopic examination of urine. BARDACH. Wien. klin. Wchnschr., 1913, xxvi, No. 4.

A case of hæmatochyluria. IMBERT. Marseilles méd., 1913, l, No. 2.

Urinary secretions, their physiography and pathogenesis. OTTO KLEINSCHMIDT. Monograph. [442]

# SURGERY OF THE EYE AND EAR

### Eye

Operation for ptosis with free transplantation of fascia. AIZNER. Zentralbl. f. Chir., 1913, xl, 153. [444]

Syphilitic pseudohypopyon. ROLLET. Ann. Ophth., 1913, xxii, 62.

Vernal conjunctivitis. R. B. METZ. Cleveland M. J., 1913, xii, 29. [444]

The clinical course of conjunctival affections associated with so-called trachoma bodies. M. COHEN. Arch. Ophth., 1913, xlii, 29. [444]

Non-gonorrhœal ophthalmia neonatorum. CREDÉ-HÖRDER. Deutsche med. Wchnschr., 1913, xxxix, 74. [445]

Ophthalmia neonatorum and its relation to blindness. EDW. B. HECKEL. Penn. M. J., 1913, xvi, 278.

Dynamite cap injuries to the eyes. J. B. CORSER. Penn. M. J., 1913, xvi, 282.

On the chemistry of senile cataract. A. JESS. Arch. Ophth., 1913, xlii, 45. [445]

Tolerance of vitreous to dislocated lenses, as index to reclination in given cases. P. DE OBARRIO. Calif. St. J. M., 1913, xi, Jan.

Calcareous degeneration of the cornea and lens capsule. F. TOOKE. Arch. Ophth., 1913, xlii, 17.

Trachoma in its relation to blindness. C. P. FRANKLIN. Penn. M. J., 1913, xvi, 265.

Observations concerning foreign bodies within the eye or orbit. W. K. ROGERS. Ophth., 1913, ix, 153. [445]

Röntgenography of foreign bodies in the eyeball. G. H. STOVER. Ophth., 1913, ix, 178. [446]

The eye in relation to tuberculosis. A. W. ORMOND. Practitioner, 1913, xc, 256. [446]

Visual symptoms of accessory sinus disease. PERCY FRIDENBERG. Ophth., 1913, ix, 186. [447]

The intrascleral nerve loops. G. ATTIAS. Ann. Ophth., 1913, xxii, 73. [447]

Short clinical accounts with microscopic demonstrations of two cases of tumor of the optic nerve. ROBT. SATTLER. Arch. Ophth., 1913, xlii, 25. [448]

Voluminous tumor of the orbit. BOUQUET. Gaz. d. hôp., 1913, lxxxvi, No. 3.

The new antiglaucomatous operations. LOUIS DOR. Ophth., 1913, ix, 195. [448]

The action of mesothorium on the visual apparatus. CHALUPECKY. Wien. klin. Rundschau, 1913, xxvii, No. 1.

The operative treatment of keratitis. GRUNERT. Ophth., 1913, ix, 163. [448]

A neurotic case of keratitis punctata superficialis. W. L. PHILLIPS. Ann. Ophth., 1913, xii, 59.

The significance of the choked disc. SCHIECK. Deutsche med. Wchnschr., 1913, xxxix, No. 1.

Diagnosis, pathogenesis, and therapy of glaucoma. K. STOLL. Therap. Rec., 1913, viii, 34.

An inquiry into results of the established treatment of detachment of the retina, and a new theory. D. T. VAIL. Ann. Ophth., 1913, xxii, 1.

Grave rupture of the sclerotica; lasting cure with conservation of normal function. WACHTLER. Med. Klin., 1913, ix, No. 3.

The relations of neuritis optica retrobulbaris with affections of the accessory sinus and the nose. WERTHEIM. Arch. f. Laryngol. u. Rhinol., 1913, xxvi, No. 1.

Syphilis of the eye. DUNBAR ROY. South. M. J., 1913, vi, 13. [449]

Peribulbar implantation cyst after removal of staphyloma of cornea. BERNARD SAMUELS. Arch. Ophth., 1913, xlii, 12. [449]

### Ear

Results personally obtained in otology by means of Bier's method of aspiration. BOTELLA. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Contribution to the study of acute otogenous meningoencephalitis. ALEXANDER. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Cases of general or endocranial complications of purulent otitis media. BOBONE. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Clinical and pathologico-anatomical studies concerning the question of suppurations of the labyrinth. BROCK. Ztschr. f. Ohrenheilk. u. f. d. Krankh. d. Luftwege, 1913, lxvii, Nos. 1–2.

Auricular hæmorrhages. CLEMENT. Beitr. z. Anat., Physiol., Pathol. u. Therap. d. Ohres, d. Nase u. d. Halses, 1913, vi, No. 2.

Bismuth paste in the ear and nose. GEO. M. COATES. N. Y. M. J., 1913, xcvii, 112. [449]

A note on some cases of osteoperiostitis in the temporal region of otogenous origin. DELOBEL. Rev. hebdom. d. laryngol., d'otol. et d. rhinol., 1913, xxxiv, No. 3.

Diagnosis, prognosis and treatment of cervical abscesses of aural origin. D. DE CARIL. J. Laryngol., Rhinol. & Otol., 1913, xxviii, Jan.

A case of rupture of the tympanum due to occupational accident. DEWATRIPONT. Bull. d. l'Ass. méd. belge d. accidents d. travail, 1913, ix, No. 4.

Diseases of the labyrinth; with special reference to the methods of examining the labyrinth in the continental clinics. J. S. GREENE. Med. Rec., 1913, lxxxiii, 56.

Report of a case of sinus thrombosis; operation; recovery. I. GRUSHLAW. Med. Rec., 1913, lxxxiii, 67.

Biscra button (Oriental sore) of the auricle. GUARRACIA. Ann. d. mal. d. l'oreille, d. larynx, d. nez et d. pharynx, 1912, xxxviii, No. 11.

Pathology and clinical manifestations of otogenous cerebral abscesses. HAYMANN. München. med. Wchnschr., 1913, lx, Nos. 2–3.

Four cases of subperiosteal mastoid abscess in adults, complicated by perisinous abscess; operation; recovery. HAROLD HAYS. Am. J. Surg., 1913, xxvii, 28. [450]

Syphilis of the ear. N. M. HEGGIE. South. M. J., 1913, vi, 17.

Two curious cases of a foreign body in the ear and in the larynx that were liable to confusion. JOLIAT. Arch. internat. d. laryngol., d'otol, et d. rhinol., 1912, xxxiv, No. 3.

Electro-diagnosis in diseases of labyrinth. E. JUNCA. J. Laryngol., Rhinol. & Otol., 1913, xxviii, Jan.

Treatment of meningitis of otitic origin. WM. MILLIGAN. Lancet, Lond., 1913, clxxxiv, 226. [450]

Tuberculous disease of the ear. WM. MILLIGAN. Practitioner, 1913, xc, 248. [450]

A case of chronic Bezold's mastoiditis caused by self-mutilation. NERGER. Ztschr. f. Ohrenheilk. u. f. d. Krankh. d. Luftwege, 1913, lxvii, Nos. 1–2.

Serous otitic meningitis, with septic thrombosis of left lateral sinus and internal jugular vein, successfully treated by operation. E. M. STOCKDALE. J. Laryngol., Rhinol. & Otol., 1913, xxviii, Jan.

Otosclerosis. A. L. TURNER and J. S. FRASER. Edinb. M. J., 1913, x, 71. [451]

Vestibular nervous anastomoses. UDVARHELYI. Ztschr. f. Ohrenheilk. u. f. d. Krankh. d. Luftwege, 1913, lxvii, Nos. 1–2.

Concerning the methods of examining the functioning of the ear. VOIATCHEK. Novoie v. Med., 1912, vi, Nos. 23–24.

Acute abscess of middle ear; etiology, symptoms, and treatment. WM. C. WHITE. Ky. M. J., 1913, xi, 64.

Generalized infections of auricular origin. WOLF. Ztschr. f. Ohrenheilk. u. f. d. Krankh. d. Luftwege, 1913, lxvii, Nos. 1–2.

Chronic suppuration of the middle ear. JOS. J. WYNN. Clinique, 1913, xxxiv, 28.

Bilateral echondroma of the auricle. ZOGRAFIDES. Wien. klin. Wchnschr., 1913, xxvi, No. 1.

Double mastoid operation in a case of streptococcus infection of both ears, which was complicated with meningitis, subdural abscess, and infection of the lateral sinus; cure. MOORE ROBERTSON. Arch. internat. d. laryngol., d'otol., et d. rhinol., 1912, xxxiv, Nos. 1–2.

The value of the blood clot in operations for acute and chronic mastoiditis. CHRISTIAN R. HOLMES. Lancet-Clin., 1913, cix, 64. [451]

## SURGERY OF THE NOSE, THROAT AND MOUTH

Concerning modification of the technique of submucous injections of paraffin in the treatment of ozæna. CALDERA. Arch. f. Laryngol. u. Rhinol., 1913, xxvi, No. 1.

Chondroplastic surgery of the alæ nasi. CANESTRO. Arch. f. Laryngol. u. Rhinol., 1913, xxvi, No. 1.

Some observations on the treatment of chronic inflammation of the nasal accessory sinuses. C. G. COAKLEY. Laryngoscope, 1913, xxiii, 70.

The use and comparison of nasal dressings. W. S. WINDLE. Iowa M. J., 1913, xix, 334.

Diffuse osteomyelitis from nasal sinus suppuration. D. MCKENZIE. J. Laryngol., Rhinol. & Otol., 1913, xxviii, Jan.

Correction of nasal deformities, particularly external lateral deflections and depressions with obstructing deviations of the septum. GEO. M. MARSHALL. J. Am. M. Ass., 1913, lx, 179. [452]

Osteoplastic surgery of the nasal septum. FLOROVSKY. Chirourguia, 1912, xxxii, No. 132.

A third method of total rhinoplasty. HOLLANDER. Berl. klin. Wchnschr., 1913, l, No. 3.

Malignant tumors of the vomer. LABOURÉ. Rev. hebdom. d. laryngol., d'otol. et d. rhinol., 1913, xxxiv, No. 1.

Syphilis of nose and throat. H. H. MARTIN. South. M. J., 1913, vi, 19.

On some surgically important forms of the frontal sinus, on the recessus cristæ galli, torus olfactorius, and recessus paracribasus. ONODI. Arch. f. Laryngol. u. Rhinol., 1913, xxvi, No. 1.

Post-operative destruction of the frontal sinus; experimental researches. SAMOYLENKO. Arch. f. Laryngol. u. Rhinol., 1913, xxvi, No. 1.

Surgical anatomy, diagnosis, and treatment of the inflammatory affections of the nasal accessory sinuses in children. SEYMOUR OPPENHEIMER. Arch. Pediat., 1913, xxx, 4.

Local anæsthesia in the radical operation after Killian for chronic frontal sinusitis. POLLAK. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Defects caused by nasal obstruction. WM. E. SAUER. J. Mo. St. M. Ass., 1913, ix, 213.

Relation between abnormal breathing and malocclusion. S. M. WEEKS. Arch. Pediat., 1913, xxx, 46.

Adenoids. F. G. Crookshank. Interst. M. J., 1913, xx, 34.

Three new cases of nasopharyngeal polyps with nasal insertion. Texier. Rev. hebdom. d. laryngol., d'otol. et d. rhinol., 1913, xxxiv, No. 3.

Some considerations on nasopharyngeal fibromata. De Stella. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Tonsillitis as a cause of infectious diseases. Brunzlow. Deutsche milit.-ärztl. Ztschr., 1913, xlii, No. 2.

The Sluder method of tonsillectomy. A. M. Corwin. Illinois M. J., 1913, xxiii, 48.

Concerning unforeseen complications of tonsillectomy. Moreaux. Paris méd., 1913, ii, No. 7.

A little known accident in adeno-tonsillotomy, and the falling of vegetative growths into the respiratory passages. Guisez. Ann. d. mal. d. l'oreille, d. larynx, d. nez et d. pharynx, 1912, xxxviii, No. 11.

Treatment of phlegmonous peritonsillitis. Lang. Casopis lek. ceskych, 1912, li, No. 48.

Tonsillitis and adenoids in their relation to other disease: a review of 200 cases. Chas. F. Lewis. J.-Lancet, 1913, xxxiii, 44.

Destruction of the tonsils. Mackenzie. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Septicopyæmia of tonsillar origin associated with cerebral abscess. Milani. Riv. Osp., 1912, ii, No. 24.

Chronic infection of the tonsillar recess and its treatment by means of tonsillectomy. Oertel. Beitr. z. Anat., Physiol., Pathol. u. Therap. d. Ohres, d. Nase u. d. Halses, 1913, vi, No. 2.

Exposure of the fossa supratonsillaris by an incision of the anterior palatine arch; an incision for aid in operations on the tonsils. Rosenberg. Ztschr. f. Ohrenheilk. u. f. d. Krankh. d. Luftwege, 1913, lxvii, Nos. 1–2.

Anomalous internal carotid artery and its clinical significance in operations on tonsils. P. G. Skillern. J. Am. M. Ass., 1913, lx, 172. [**452**]

Enlarged tonsils. H. T. Webster. Ellingwood's Therap., 1913, vii, 4.

Interlaryngeal fibromata. Compaired. El Siglo med., 1913, lx, No. 3082.

Rapid opening of the larynx in cases of extreme imminence of asphyxiation. Denker. Med. Klin., 1913, ix, No. 1.

The result of 18 years of research work on voice production analysis. W. Hallock and F. S. Muckey. Laryngoscope, 1913, xxiii, 5.

Early diagnosis and treatment of laryngeal tuberculosis. J. H. Hallock. Ophth., Otol. & Laryngol., 1913, xix, 28.

Treatment for the removal of dysphagia in affections of the larynx. Hinsberg. München. med. Wchnschr., 1912, lix, No. 53.

Suspension laryngoscopy. Louis C. Kaempfer. N. Y. M. J., 1913, xcvii, 21. [**452**]

Incipient tuberculosis of the larynx. R. Pettit. N. Y. M. J., 1913, xcvii, 122. [**453**]

Experimental research on plastic surgery of the larynx. Pinardi. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Tuberculosis of the larynx. St. Clair Thomson. Practitioner, 1913, xc, 243.

Throat infections and their treatment. M. H. Whitlock. Clinique, 1913, xxxiv, 18.

A case of laryngocele (aërocele). Zianoury. Arch. internat. d. laryngol., d'otol. et d. rhinol., 1912, xxxiv, No. 3.

Intubation. W. T. Parrott. Va. M. Semi-Month., 1913, xvii, 478.

Combination operations between general surgeon and otolaryngologist. J. C. Beck. Illinois M. J., 1913, xxiii, 86.

Adenoma of the mouth. Marx. Ztschr. f. Ohrenheilk. u. f. d. Krankh. d. Luftwege, 1913, lxvii, Nos. 1–2.

Mixed tumors of the palate. Opskine. Chirourguia, 1912, xxxii, No. 190.

The operative treatment of the cleft palate. Philip Weatherbee. Canad. M. Ass. J., 1913, iii, 25. [**453**]

Relation to, and influence upon, respiration during childhood of normal and abnormal dental arches. A. Zentler. Arch. Pediat., 1913, xxx, 25.

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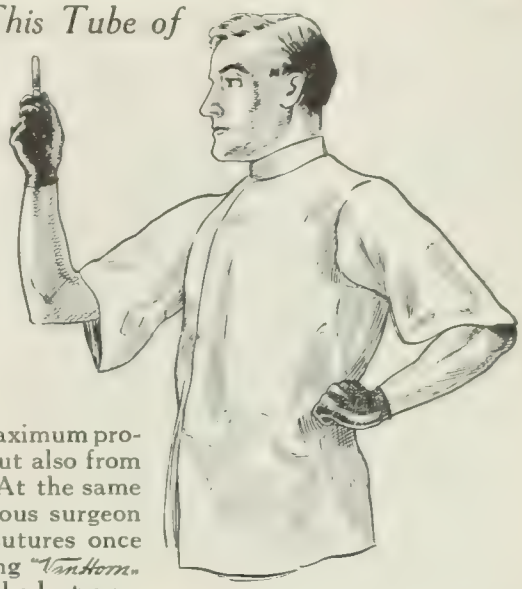

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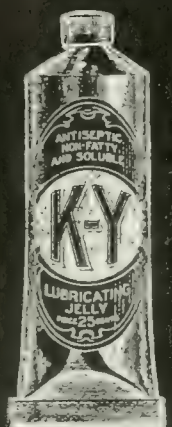


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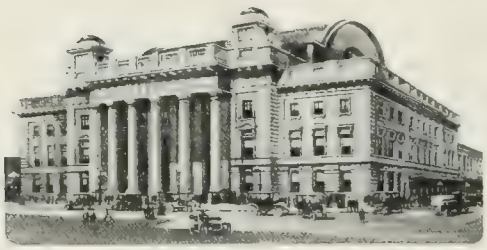

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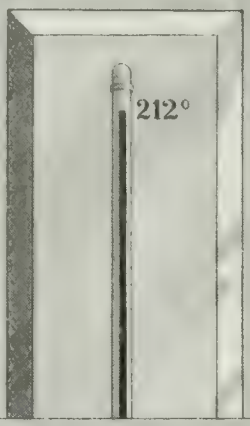


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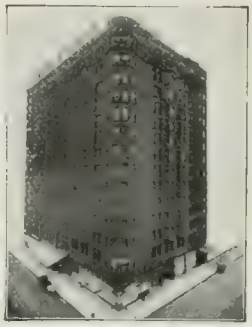

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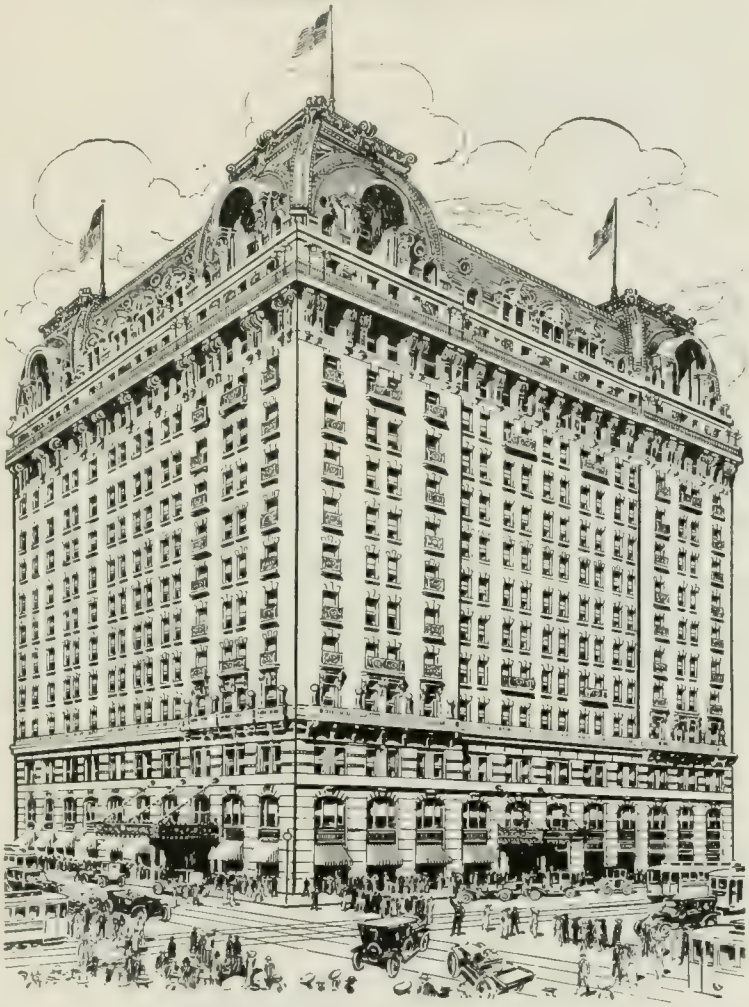

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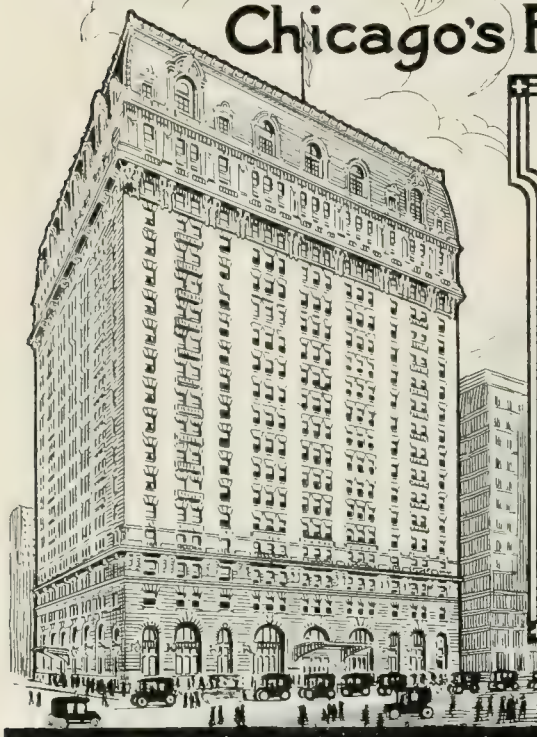

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